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THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

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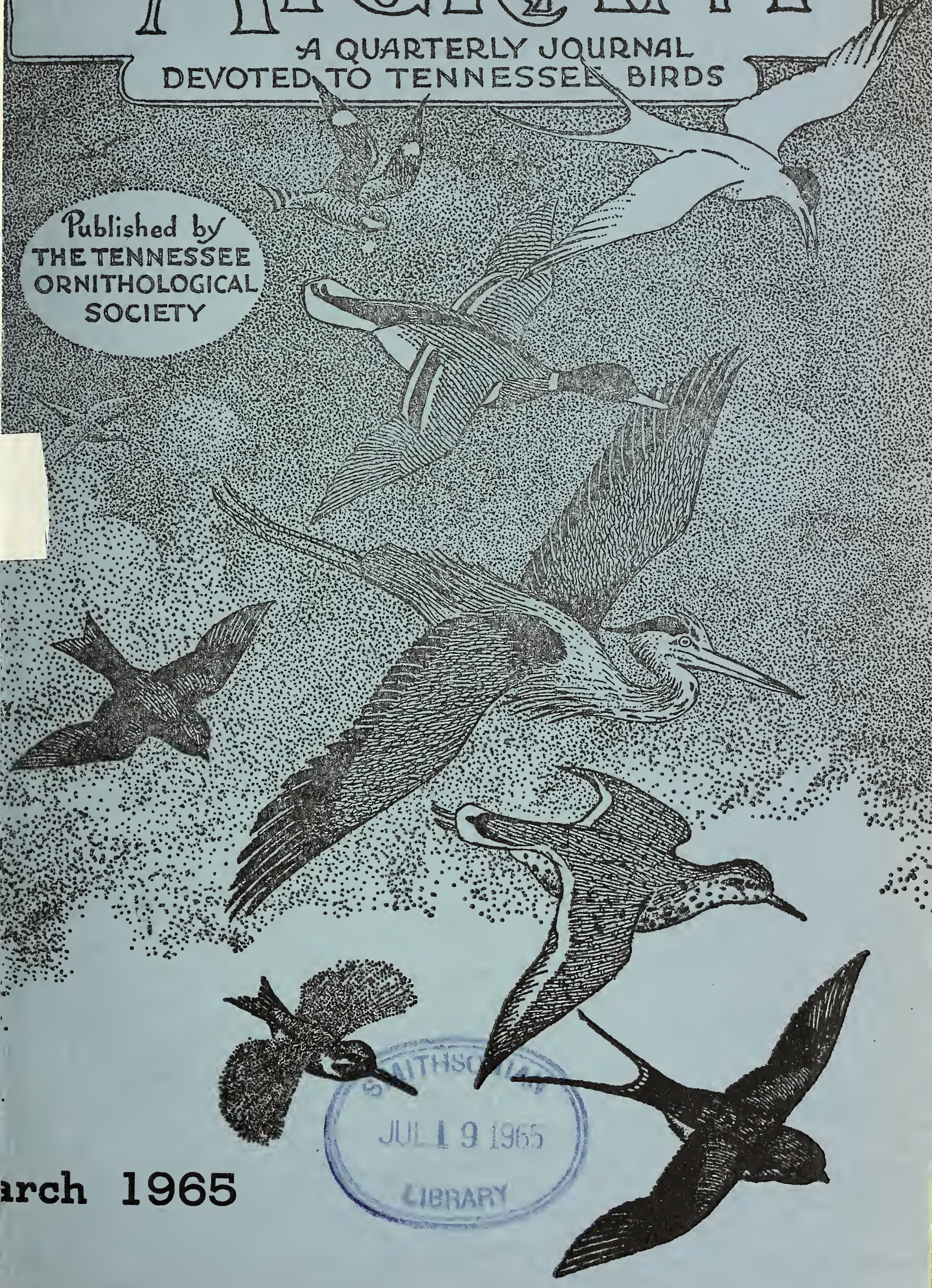

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ANNUAL AUTUMN HAWK COUNT 1964

Compiled by THOMAS W. FINUCANE

The fifteenth consecutive annual count by the Tennessee Ornithological Society of the September hawk migration gave the lowest total, 3166, since 1958. There were 2954 Broad-winged Hawks, 93% of the total. The peak day was 21 Sept., one day before our cumulative peak date, but the largest number recorded, 650 hawks, was on Tuesday, 22 Sept. The weather was generally cloudy on weekends and exceptionally clear between weekends.

An outstanding feature of the 1964 fall migration was the early dates of flights of Broad-winged Hawks, in our area and other areas. In our area, the most remarkable observation was made by Roger Stone and Wallace Coffey, who counted 22 hawks in 5 hrs. spent at the Mendota Fire Tower lookout on 13 Aug. Holmes Rolston had 36 Broad-wings, 7 Sept., and Mr. and Mrs. T. L. Rogers had 37 on 8 Sept. These figures and the count of 48 Broad-wings, 8 Sept., 1963, represent very early migration. In other areas, Maurice Broun (Hawk Mt. Sanctuary Assn., News Letter, March 1965) observed: "A sharp cold front on Sept. 11 triggered the earliest mass movement of Broad-wings on record." Their count for 12, 13, and 14 Sept. added to 7921, including "a very early Goshawk." (Of these, 1172 were seen 14 Sept., listed as 4 Sept. in the AUDUBON FIELD NOTES, 19:22). On 15 Aug. Alan Brady saw 200 Broad-wings at Cape May, N. J. (Montclair Bird Club Operation Hawk Watch, 1964). A count of 500 was made at Houston, Texas, Sept. 12. (AUDUBON FIELD NOTES, 19:58).

Although lowest since 1958, the 1964 T.O.S. Count was higher than all but one (1951) of the eight counts made before 1959. The 6-yr. average, 1959-1964, is 6884 Broad-wings. For the same period, Hawk Mt., Pa., averaged 9040, which is 36% above the 1935-1948 average for this species at the same lookout. All other species lost numbers in the same interval. In the earlier period the average count of Sharp-shinned hawks was 3682, which fell to 2018 in the later average, 1959-64. The Hawk Mt. project is particularly interesting because it has accumulated data, all day every day (weather permitting) for three months every fall since 1934, except for three years when Dr. Broun was overseas in military service. Other lookouts get higher counts, up to 70,000 Broad-wings in one day at one station on the shores of the Great Lakes.

The 1964 hawk-migration was the first for the T.O.S. with no eagles recorded. In 1961 we had 10 Bald Eagles, in 1962, one Golden and 3 Bald, and in 1963, three Bald and one unidentified eagle. Our count of Sharp-shinned Hawks has never been more than a few percent of the total, because our territory is too far south, too far west, and we spend very little

SMITHSONIAN INSTITUTION JUL 16 1965

time in the field after the first week in October. In 1958 we had 63 Sharp-shins, 52 of them in October, and 22 on 11 Oct., which is in our peak period for Sharp-shin migration, as projected from Hawk Mt. data.

Maurice Broun attributes the decline of accipiters to wide-spread use of insecticides: "Enormous numbers of Accipterine hawks were formerly killed along the hawk flyways; yet the birds held up impressively until a decade ago. The aerial use of pesticides, the dousing of millions of acres of Canadian sprucelands especially, has reduced the former vast numbers of tree-top birds to a trickle, and the natural predators of these birds, the Sharp-shinned and Cooper's Hawks, have become scarce.

"Peregrine Falcons rank with both species of eagles: high on the danger list of vanishing species. The birds that we see are members of an Arctic population. The Peregrine has become extinct as a breeding bird in the eastern United States, probably since 1954."

There were no Peregrines in the T.O.S. hawk-migration reports, 1964, but there were five unidentified falcons, and one Peregrine was seen in Knoxville; 9 Sept., by Joe Howell (AUDUBON FIELD NOTES, 19:35). Special mention of this report in AFN emphasizes the scarcity of this species. The Appalachian Region editor of AFN, Geo. Hall, stated that the increasing banding activity in the region shows marked differences in estimates of populations between banders and field-glass reporters and that differences were greater than ever in the fall of 1964, when banders reported heavy migration while the average birder felt that the season was a poor one. The fall hawk-migration study is an exception, of course; furthermore, it provides a better, quantitative account of trends and fluctuations. Our project is mainly a study of Broad-winged Hawk migration. It is difficult to follow the Peregrine trend, because falcons usually pass the lookout too fast or too far away for positive identification by our hawk watchers, including the writer, who recorded two unidentified falcons in 1964. Almost any bird can be identified in silhouette in flight, but too few Peregrines fly by for us to acquire sufficient skill in identification.

NOTES

1. Roger Stone and Wallace Coffey made this new early record observation shortly after the passage of a cold front of the type we believe stimulates hawk migration in the T.O.S. area. From 8:30 a.m. to 1:30 p.m. the counts for ½-hr. intervals were: 0,0,3,5,2,4,1,0,3 Broad-wings, and observation was stopped at 1:45 p.m. The wind was mild, and the sky had high, scattered clouds. Dark rain clouds were in the area. At 1:00 p.m. the "sun is remaining bright but it is still very cold" (13 Aug.). Cliff Swallows were in the air, and one struck a passing Broad-wing several times.

9. The two Marsh Hawks were clearly seen, with white at the base of the tail. They spent some time darting at a vulture. At lunch I went round on the east side of the ranger's bunkhouse to eat. When I got up to return to the tower, two Black Vultures had perched on the tower. One left when I moved, but the other remained 20 min. Vultures were in the air all day, as many as 20 at a time.

13. The 2nd Marsh Hawk was soaring with a Turkey Vulture on the north side of the ridge and was then chased across the ridge by a Broad-wing. The Broad-wings were having to crab 90 deg. into the north wind and were passing the tower sideways, but the Osprey was having much

less trouble with the wind. The 2nd Sharp-shin and the Sparrow Hawk were being chased by swallows.

22. Dr. Geo. R. Mayfield, Jr., while flying his Cessna, about 3:00 p.m., 16 Sept., at about 2000 ft. above sea level just west of McMinnville, Tenn., saw more than 200 hawks flying south, mostly above the airplane, at varying altitudes. Some of these could be identified, even in flight, as Broad-wings, by the banded tail.

23. The 219 Broad-wings in this report were also seen on 16 Sept., 10:45 a.m. to 3:00 p.m., in the Mendota Fire Tower area: 130 at the lookout, 29 from the trail up the mountain, and 60 from the trail down the mountain. Combined with the Mendota Fire Tower report, 15 Sept. and the Elder Mt. report, 17 Sept., No. 21 & 24, the 16 Sept. reports suggest a major movement of Broad-wings through our area, corresponding to the large flights centering on 13 Sept. in Pennsylvania and 11 Sept. at Duluth, Minn.

26. A combination of flights seen by Maxie Swindell, 19, 20, 21 Sept., was from her home at the center of the Knoxville Christmas Count circle.

30. This was the best day of the 1964 migration at Elder Mt., 20 Sept., 312 Broad-wings in spite of poor weather, but not a high count compared to high counts at this station 1958-1963.

36. The highest day's count in 1964 was made at the Mendota Fire Tower lookout, 11:10 a.m. to 5:00 p.m. The major migration ended before 1:30 p.m. Mr. Rolston remained at the lookout until 5:00 p.m. and counted only 4 more hawks. Heavy flight was already in progress when the first observers arrived, a group from Kingsport. It is difficult to get a full day's observation on week-days, but enough data were obtained here to show that there was substantial migration 22 Sept. and 16 Sept.

37. At the Meadow Creek Fire Tower lookout, near Greeneville, Fred Behrend had only 2 Broad-wings, 23 Sept., compared to 21 Sept., when his count was 62. The poor count 23 Sept. and the 1:30 p.m. ending of the large migration over the Mendota Fire Tower the day before may be related. 21 Sept. is a day when more lookouts should have been active.

38. Hump and Little Hump Mt., from Upper Shell Creek, 3875-5600'.

41. Friday, 25 Sept., was a beautiful, clear day. Mrs. Clark and Mrs. Darnell counted 41 hawks and Mr. Behrend had 34. Weekend hawk-watchers were encouraged by Friday's weather.

42. Eight lookouts were active, 26 Sept. Gene and Adele West reported 116 Broad-wings, and the Mendota Fire Tower lookout had 234. The other six combined to make the total 432 for the day. Seven of our best lookouts were involved, with best single-day counts in past years of 4985, 3000, 2379, 1091, 912, 700, 650.

48. Wallace Coffey kept watch at the Mendota Fire Tower lookout 8:45 to 5:30. Also Mr. and Mrs. H. W. Nunley and Dr. and Mrs. J. J. Murray participated, 10:00 a.m. to noon. Dr. Murray had never before participated in a mountain hawk-watch. While he was there, 61 Broad-wings and an Osprey passed the lookout. They were flying low and in groups of 15 and smaller. "He was very pleased with what he saw," according to Wallace. Hawk migration past the Mendota Fire Tower lookout is an impressive sight. The count was 65 up to 11:00 a.m., and then no hawks were seen for the next 3 hrs. From 2:00 until after 5:00 the flight was strong and steady.

49. With Wallace on the Mendota Fire Tower lookout, the compiler

HAWK OBSERVATIONS FALL OF 1964

No.	Date	Obs.	h.	Lookout	Alt.	Wind	Temp.	Sky	Ssn	Cps	Rtl	Rsh	Bdwg	Msh	Osp	SpH	Acp	But	Fal	?
1	8/13	CoS	5	Mendota FT	3018	0-3 N-NE	50	3	....	....	2	....	19	....	....	1	....	....	....	....
2	19	S	3½	Mendota FT	3018	0	60-65	0	....	....	1	....	9	....	....	2	....	....	....	....
3	25	M	—	Oak Ridge	——	0-2 WSW	65-86	0	....	....	....	....	12	....	....	....	....	....	....	....
4	26	M	—	Knox Co.	900	0-2	64-83	3	....	....	....	....	5	....	....	....	....	....	....	....
5	31	M	—	Knox Co.	900	3 N	70-91	0	....	....	....	....	6	....	....	....	....	....	....	....
6	9/5	O	8	Hemlock Kb	4032	3-4 NW-N	66-76	2	....	3	1	....	3	1	....	....	....	....	....	....
7	6	R	3	Elder Mtn	1880	....	....	....	....	....	....	....	7	....	....	....	....	....	....	....
8	7	R	1½	Elder Mtn	1880	....	....	....	....	....	....	....	7	....	....	....	....	....	....	....
9	7	H	6	Mendota	3018	1-3 S	70-85	0	....	1	....	....	36	2	....	....	....	1	....	....
10	8	R	—	Elder Mtn	1880	....	....	....	....	....	....	....	37	....	....	....	....	....	....	....
11	12	ED	6	Rogrsvl FT	3000	1-2 NE	70-74	2	....	....	4	....	10	....	....	....	....	....	1	....
12	12	NA	6	Elder Mtn	1880	.... NE	....	1	....	....	....	....	6	....	....	1	3	....	....	....
13	12	TO	8½	Chimney Top	3100	3-7 NE-E	64-74	1	2	....	2	....	6	2	1	1	1	....	....	....
14	12	PF	7	Mendota FT	3018	6-9 NE	70-80	2	3	2	1	....	23	....	....	4	1	1	2	1
15	13	Cht	5½	Elder Mt.	1880	.... NE	....	3	....	....	....	....	81	....	....	....	2	2	....	2
16	13	M	—	Knox Co.	900	5 NE	50-73	2	....	....	....	....	22	....	....	2	....	....	....	....
17	13	JF	6	Mendota FT	3018	0-6 N	50-75	4	....	....	....	....	54	....	1	....	....	....	....	....
18	14	G	7	Elder Mt.	1880	0-2 NE	50-	0	....	....	....	....	5	....	....	....	....	....	....	....
19	14	H	5	Mendota FT	3000	0-2 SE	warm	1	....	1	....	....	17	....	2	....	....	....	....	....
20	15	G	4	Elder Mt.	1880	0-2 N	50-80	....	....	....	2	....	18	....	....	....	....	....	....	....
21	15	C	5	Mendota FT	3018	0-4 SE	....	1	3	3	....	....	158	....	....	....	....	....	....	....
22	16	May	—	Airplane	2000	....	....	....	....	....	....	....	200	....	....	....	....	....	....	....
23	16	CDn	5	Mendota FT	3018	3-4 SSE	70	1	....	....	....	....	219	....	....	....	....	....	....	1
24	17	G	5½	Elder Mt.	1880	0-5 SE	50	3	....	....	....	....	149	2	....	....	....	....	....	....
25	17	B	8½	Buck Ridge	4300	2-3 E-S	59-65	4	....	....	....	....	....	....	....	....	....	....	....	1
26	19	M	—	Knox Co.	900	1-7 var	65-78	4	....	....	....	....	12	....	....	....	....	....	....	....
27	19	ECl	2	Meadow Ck	2875	1-2 NW	72-74	1	1	....	....	....	....	....	....	....	....	....	....	1
28	19	B	8	Holston HKb	4200	1-3	55-65	5	....	....	....	....	....	....	....	....	....	....	....	....

29	19	DnF	6	Mendota FT	3018	6-3 SE	70-80	5	1	1	1	....	15	....	....	....	1	....	....	....
30	20	AG	6	Elder Mt.	1880	0-1 var	....	5	....	....	....	....	312	1	....	....	....	2	1	....
31	20	TF	6	Mendota	3018	4 N	65-80	4	2	1	1	1	48	1	....	1	....	....	....	1
32	21	B	7½	Meadow Ck	2875	2-3 SE-NW	61-71	4	1	1	3	....	62	....	....	3	....	....	....	1
33	22	R	1½	Elder Mt.	1880	....	....	....	....	....	....	....	21	....	....	....	....	....	....	....
34	22	BZ	5	Mt. Sterling	5835	1-4 W	55	5	1	....	....	....	....	....	....	....	....	....	....	....
35	22	ECl	4½	Meadow Ck	2875	2-3 N	68-74	1	3	....	....	....	1	....	....	1	....	....	....	....
36	22	HCW	6	Mendota FT	3018	0-3 S	70-80	4	1	2	....	....	628	....	1	....	....	....	1	....
37	23	B	6	Meadow Ck	2875	2-4 SW-NW	61-71	4	....	....	2	....	2	....	....	....	....	....	....	....
38	24	B	9½	Hump Mts.	*	2-6 NW-NE	45-52	4	1	....	1	....	....	....	....	2	1	1	....	....
39	24	CoQ	—	White Top	5520	9 NW	....	2	1	....	....	....	1	2	....	....	....	....	....	....
40	25	B	9	Roan Mt.	6250	2-5 NW-W	35-43	0	1	....	1	....	32	....	....	....	....	....	....	....
41	25	ECl	5	Rich Tower	3720	2-3 N	68-72	1	....	....	3	2	36	....	....	....	....	....	....	....
42	26	AG	4	Elder Mt.	1880	4-5 SE	....	3	....	....	....	....	116	....	....	....	....	....	....	....
43	26	M	—	Knox Co.	900	0-2 NW	50-78	2	....	....	....	....	....	....	5	....	....	....	....	....
44	26	E	5½	Meadow Ck	2875	4-5 NE	60-70	4	1	....	2	5	6	....	....	....	....	....	....	....
45	26	CPK	5	Rogrsvl FT	3000	3-5 SE	70-75	1	....	....	3	....	40	....	....	....	....	....	....	....
46	26	B	7	White Rock	4100	3-4 S-SW	56-	1	....	....	....	....	8	....	....	....	....	....	....	....
47	26	DnY	5	Chimney Top	3100	5-6 SW	....	3	1	....	1	....	14	....	....	....	....	....	....	....
48	26	CoV	9	Mendota FT	3018	4-5 E-S	....	2	....	....	6	....	234	....	1	....	....	....	....	....
49	26	FWm	8	Haytors Kb	4500	9 SE	60-75	3	....	....	1	2	14	....	....	....	....	3	....	....
50	27	B	7	Haytors Kb	4500	2-3 S-SW	60-62	3	3	....	....	....	3	....	....	2	....	1	....	....
51	27	O	8	Chimney Top	3100	3-4 SE	63-73	3	5	....	4	1	19	....	1	....	....	....	....	1
52	27	FDk	6	Mendota FT	3018	3-5 S-W	70-80	4	....	1	....	....	24	....	....	....	....	....	....	2
53	10/2	M	—	Oak Ridge	——	3 W	69-84	4	....	....	....	2	23	....	....	....	....	....	....	....
54	3	FDk	7	Mendota	3018	0-5 S	60-	3	1	1	....	....	19	1	1	....	1	....	....	1
55	4	Ts	—	Mendota	——	....	....	....	....	....	....	....	125	....	....	....	....	....	....	....
56	5	S	2½	Brist. area	1750	....	70-80	5	....	....	....	....	30	....	....	....	....	....	....	....
57	19	OlM	5	Cove Lake	——	....	50-56	5	....	....	....	....	....	....	....	....	....	30	....	....
	TOTALS		267						32	17	42	13	2954	12	13	20	10	41	4	12

was free to try Haytor's Knob, a lookout on the Clinch, north of Abingdon. In the early days of the T.O.S. Hawk Count, Steve Russell had had good counts on Haytor's Knob. We started before sunrise; a long drive and a long hike were required. When the sun rose, it was bright yellow; the air was perfectly clear. At the lookout, however, the wind was high, and the sun was already dimmed by high cirrus when we reached the fire tower at 9:20, after a 3-hr. trip. By 10:45 the wind was down enough for 3 Black Vultures to navigate, and 2 Ravens appeared. The number of Blacks gradually increased to 20 by 3:30 p.m., when the wind had slackened to about 30 m.p.h. About 2:00 p.m. we spotted what looked like a bright metal sphere, diameter about 0.1 deg. and about 15 deg. south of the zenith. It seemed to stay in the same spot about ½ hr., and then it disappeared. Conditions were poor for hawk flight, but we had an interesting day.

50. Pasture above Lake Phillip Nelson, Carter Co., 3800 ft.; Belview Mt., Avery Co., near Cranberry, 4400 ft.

54. Besides the hawks, we counted 500 Monarch Butterflies, 9 Flickers, 5 Red-headed Woodpeckers, and 6 unidentified woodpeckers evidently in migration; all were in flight down range.

55. Mr. and Mrs. T. S. Barr saw these Broad-wings going to roost in Powell Valley, near Chattanooga. This is only the second report we have had of large flights going to roost since 1957 (THE MIGRANT, 29:2).

56. "These (30) hawks were spotted quite by accident. While watching for small warblers I noticed three or four Turkey Vultures, and above them were the hawks. In less than a minute they disappeared into a large rain cloud."

KEY TO REPORTERS

A—Adele West, Chattanooga; B—Fred Behrend, Elizabethton; C—Charlotte Finucane, Kingsport; Cht—Mr. & Mrs. Howard Meadors, Wm. Carson, Ray Claridy, Mr. & Mrs. E. M. West, Chattanooga; Cl—Edith Clark, Greeneville; Co—Wallace Coffey, Bristol; D—Chester B. Darnell, Greeneville; Dk—Dick Finucane; Dn—Dan Finucane; E—Elva Darnell; F—Thomas Finucane; G—E. M. West; H—Holmes Rolston, Bristol; J—Joseph Finucane; K—Grace Finucane; M—Maxie Swindell, Knoxville; N—Mabel Norma, Chattanooga; O—T. A. Odom, Kingsport; Ol—Frances Olson, Knoxville; P—Patric Finucane; Q—Robert Quillen, Bristol; R—Mr. & Mrs. T. L. Rogers, Chattanooga; S—Roger Stone, Bristol; T—Tommy Finucane; Ts—Mr. & Mrs. T. S. Barr, Chattanooga; V—Dr. & Mrs. J. J. Murray, Lexington, Va., Mr. & Mrs. H. W. Nunley, Bristol; W—Louise Weber, Kingsport; Wm—Wm. Finucane; Y—John Moran, Kingsport; Z—Don DeFoe, Lloyd Foster, Big Creek Ranger Station, Waterville Star Rt., Newport.

SKY CODE

0. Clear; very clear.
1. Scattered clouds; haze; mostly clear; clear to cloudy; clear to partly cloudy.
2. Partly cloudy; partly cloudy to clearing; hazy fair to increasingly cloudy.
3. Cloudy to partly cloudy; partly overcast; scattered clouds, cloudy; high, thin overcast.
4. Very cloudy high and low, later low clouds only; partly cloudy, clear, cloudy.
5. Fog, to heavy clouds; overcast; partly cloudy, fog, rain; light and heavy rain before 9:00 a.m., with clouds beginning to lift at 11:20 a.m., inter-

mittently sunny and cloudy, thundershowers west side of Tennessee Valley.

BEAUFORT WIND SCALE

0—Less than 1 knot; 1—1 to 3; 2—4 to 6; 3—7 to 10; 4—11 to 16; 5—17 to 21; 6—22 to 27; 7—28 to 33; 8—34 to 40; 9—41 to 47 knots. (A knot is 1.15 m.p.h.)

1434 Watauga Street, Kingsport.

THE SEASON

STATEWIDE WEATHER SUMMARY FOR 1 DECEMBER TO 1 MARCH, 1964-1965

West Tennessee—Data unavailable.

Middle Tennessee—The season was punctuated by one severe cold snap, lots of rain, one 5-inch snow, one near blizzard with light snow fall, (Based on data offered by Hollister without dates).

East Tennessee—Upper portions of this area experienced heavier snowfall and possibly colder temperatures during this season. During the closing days of December there was much rainfall over the area with temperatures about 55°F. By 10 January temperatures remained high with flooding of streams in some areas. 16 January was the most severe snow fall of the season with accumulations of about 7 to 8 inches in the upper areas to 1.6 inches at Chattanooga. Upper East Tennessee temperatures were as low as 8°F the following day. The snow cover remained until 21 Jan. in northern portion of area and until 17 Jan. in southern. The upper area experienced an additional 7 inches on 1 & 2 Feb. with Chattanooga recording only 0.6 of an inch. The snow remained through 5 Feb. when temperatures reached 0°F at Greeneville. Greeneville again recorded 2 inches on 6 Feb. but after that date, it was warm and nice reaching as high as 76°F. during the closing days of the month. (Based on reports of: Coffey, Smith, Nevius, Tanner, Dubke).

COLUMBIA.—**Grebes—Ducks:** Pied-billed Grebe: 5 and 31 Dec.; Great Blue Heron: 27 and 31 Dec.; Canada Goose: 14 and 31 Jan.; Mallard: 5 and 31 Dec.; 14 and 31 Jan.; 14 Feb.; Gadwall: 14 and 31 Jan.; maximum 4; Pintail: 31 Jan. and 28 Feb.; maximum 40; Green-winged Teal: 7 Dec.; American Widgeon: 31 Dec. and 14 Jan.; 31 Jan.; 14 Feb.; maximum 50; Shoveler: 20 March (8); Wood Duck: 31 Dec.; Redhead: 14 and 31 Jan.; 14 Feb.; maximum 250; Canvasback: 7 Dec.; 14 and 31 Jan.; 14 Feb.; maximum 30; Bufflehead: 5 Dec. (2); Old Squaw: 31 Dec. (2); Ruddy Duck: 14 and 31 Jan. (2).

Rails—Shorebirds: American Coot (300-400) all season at MP.

Woodpeckers—Chickadees: All six common winter species present. Uncommon Red-headed Woodpecker (1) Feb.-March (FF); Hairy Woodpecker: rare; Carolina Chickadee: (GF), all season.

Blackbirds: Roost at LB, about one million, half Starlings, remaining components: grackles, Redwinged Blackbirds, Rusty Blackbirds, Cowbirds, few; Robins and Brewer's Blackbirds.

Sparrows: Harris' Sparrow: since 26 Dec. (GRM)RR until 1 March; banded 20 Feb. (KAG); present entire season: Savannah Sparrow; Field Sparrow; White-crowned Sparrow; White-throated Sparrow; Fox Sparrow;

Swamp Sparrow; Song Sparrow; Vesper Sparrow: 27 Dec. (12) (FF).

Locations: LB—Lewisburg, Tenn., MP—Monsanto Pond, RR—Ridley residence.

Observers: FF—Fuqua family, KAG—Mrs. K. A. Goodpasture, GF—Gray family, GRM—George R. Mayfield, Jr.

GEORGE R. MAYFIELD, JR., Maury County Hospital, Columbia, Tenn.

NASHVILLE.—**Loons — Ducks:** Common Loon: One on OHL 6 Feb. (HEP); Horned Grebe: wintered, peak: (100) 6 Feb. OHL (HEP). Great Blue Heron: a few all winter, peak (8) OHL 17 Feb. (MCW). Canada Goose: 2 Jan. (107) near CD (JSH); 21 Feb. (56) (HEP); (20), (KAG), both SHV; (80 plus) over home (HCM). American Widgeon: (46) CL 21 Feb. (MCW) an unusually large number for here. Shoveler: a female, BL 20 Jan. to 30 March, very rare here in winter; (17) BL 25 March, both (HEP); Redhead: (5) 10 March OHL (LOT); Canvasback: (18) BL 9 March (HEP); Greater Scaup: one with 49 Lesser, BL 12 Dec. (HEP); Lesser Scaup: (200) 20 Jan. to (400) late March BL (HEP); Common Goldeneye: (18) RL 18 Feb. (MCW) an unusual number for here; Bufflehead: three OHL Jan. and Feb. (LOT); (26) RL (MCW) 17 Feb. is most unusual; Old Squaw: 30 Dec., one, OHL (LOT); one RL 22 March (MCW); Ruddy Duck: rare winter record, one BL 14 Jan. that stayed until two joined it 18 Feb. (HEP). These stayed through 30 March. Hooded Merganser: one wintered OHL (LOT). Common Merganser: wintered OHL, (40) there 6 Feb. (HEP).

Hawks — Gulls: Goshawk; a dead immature male picked up 4 Jan. (HEP). It was internally sexed and made into a study skin by ARM for the Children's Museum. Apparently it was killed by flying into a wire fence. Woodcock: 25 Feb. one in yard all day (HCM). Common Snipe: rare all winter; Ring-billed Gull. Almost absent on BL all winter; wintered in usual numbers OHL; peak: (800) 8 Jan. (LOT). Bonaparte's Gull: wintered OHL; peak: (350) 19 Feb. (LOT).

Dove — Swallows: Mourning Dove: on nest 2 March (HCM), nest unsuccessful; Tree Swallow: 21 March (2) CL (MCW); Rough-winged Swallow: 25 March (5) RL (MCW); Barn Swallow: 21 March (2) CL (MCW). Purple Martin: (2) Goodlettsville 9 March by Mr. Stevens (fide ARL).

Nuthatch — Blackbirds: Red-breasted Nuthatch absent all winter. Water Pipits: (50) SHV 20 March (KAG); White-eyed Vireo: a very early one 28 March (HCM); Myrtle Warbler: scarce, and most seen were singles; Rusty Blackbirds: (250) Old Hickory Blvd. and Hillsboro Road by SB 30 Jan., very large number for area.

Finches: Dickcissel; male (banded) Ellington Center 23 Feb. (JR, ARL); Purple Finch: scarce, but present at some feeders in small numbers. Pine Siskin: no reports; Vesper Sparrow: (10) 20 March SHV (KAG); Tree Sparrow: Present from the Christmas Count through 25 Feb. (HPM). Chipping Sparrow: first, 12 March (1) (HPM); White-crowned Sparrow: large flock wintered BV and regular elsewhere. White-throated Sparrow: scarcer than usual.

Locations: BV—Buena Vista, BL—Bush Lake, CD—Cheatham Dam, CL—Coleman's Lake, OHL—Old Hickory Lake, RL—Radnor Lake, SHV—South Harpeth Valley.

Observers: SB—Sue Bell, KAG—Katherine A. Goodpasture, JSH—John S. Herbert, ARL—Amelia R. Laskey, HPM—Mrs. H. P. McClanahan, HCM—Harry C. Monk, HEP—Henry E. Parmer, LOT—Laurence O. Trabue, MCW—Mary C. Wood.

HENRY E. PARMER, 3800 Richland Ave., Nashville, Tenn. 37205

COOKEVILLE.—**Plovers:** Killdeer: 3 to 5 entire season TT (PLH); Common Snipe: 4 to 16 entire season TT (PLH).

Doves — Owls: Mourning Dove: entire season maximum 10.

Flycatchers — Larks: Eastern Phoebe: 22 Jan. (3) R (RH); 3 Feb. (3) R (RH); Horned Lark: most of season at R (RH); maximum 18.

Thrasher — Shrikes: Brown Thrasher: observed on four days 1 Jan. to 2 Feb. (1 bird); Robins: present (0 to 150) Jan. to March; Hermit Thrush: 2 and 3 Feb. (3) (RH); Cedar Waxwing: (8 flocks, 130 maximum) 5 Jan. to 8 Feb. R (RH); Bluebird and Loggerhead Shrikes observed 1 Jan. to 2 Feb.; Bluebird: 33 maximum R (RH); Loggerhead Shrike: 5 maximum R (RH).

Starlings — Finches: Starlings: very few TT since fall; Myrtle Warbler: 4 to 10 Feb. (maximum 3); Redwinged Blackbird: 15 Feb. (1) (PLH); Common Grackle: first 13 March (5 to 30 afterwards) TT; Brown-headed Cowbird 20 Feb. (2) TT (PLH); Purple Finch: 1 Feb. (10) TT (PLH); 3 to 10 during seven day period of early Jan. R (RH); Slate-colored Junco 7 Jan. (1) possible albino at R (RH).

Locations: R—Rickman (Tenn. Hwy. 42), TT—Tennessee Tech campus.

Observers: MH—Morris Haile, CH—Caprice Haile, BF—Mrs. Bevo Ford, HC—Mrs. Howard Copeland, PLH—P. L. Hollister, RH—Roy Hinds.

P. L. HOLLISTER, Tennessee Polytechnical Institute, Cookeville, Tenn. 38501

CHATTANOOGA.—**Loons — Mergansers:** Common Loon: CL 24 Jan. (1). Horned Grebe: CL 3 Jan. (3), WHR 4 Jan. (25), CL 31 Jan. (2), and 28 Feb. (1). Pied-billed Grebe: WHR 4 Jan. (8), CL 31 Jan. (1) and 28 Feb. (1). Great Blue Heron: CL 6 Dec. (2), WHR 4 Jan. (1); CL 17 (4) and 24 Jan. (4), 7 Feb. (6) and 14 Feb. (14). Canada Goose: WHR 4 Jan. (160); CL 17 Jan. (2) and 21 Feb. (3). Mallard: About 200 semi-wild ones are being regularly fed in the vicinity of the Hamilton County Park so it is difficult to ascertain numbers. WHR 4 Jan. (350). Black Duck: CL 6 Dec. (150) with varying numbers downward on CL thru the period. WHR 4 Jan. (350). Gadwall: WHR 4 Jan. (6); CL 17 Jan. (3), 31 Jan. (5), 14 Feb. (16) and 28 Feb. (2). Pintail: WHR 4 Jan. (25); CL 21 Feb. (2). Green-winged Teal: WHR 4 Jan. (8). American Widgeon: WHR 21 Jan. (25); CL 31 Jan. (5), 14 Feb. (8). Wood Duck: MP 18 Feb. (1). Redhead: CL from 10 Jan. (10) to high count 17 and 24 Jan. (25). Ring-necked Duck: CL 3 Jan. (21), 21 Feb. (13) and 28 Feb. (1). Canvasback: WHR 4 Jan. (5). Lesser Scaup: CL 6 Dec. (35), 13 Dec. (5) with maximum numbers on 31 Jan. (120) and 21 Feb. (133). Common Goldeneye: 21 Feb. (1) and 28 Feb. (2). Bufflehead: 3 Jan. (4), 4 Jan. (2), 24 Jan. (3) and 28 Feb. (1). Hooded Merganser: Observed during most trips afield. Maximum numbers: 24 Jan. (57).

Vultures — Hawks: Turkey Vulture: 24 Jan. (3), 28 Feb. (1). Cooper's Hawk: Singles 6 Dec. and 13 Feb. Red-tailed Hawk: Regular. Maximum number: 14 Feb. (5). Red-shouldered Hawk: 1 to 2 sporadically. Bald Eagle: 3 Jan. (1 immature). Marsh Hawk: Single birds noted evenly thru period.

Rails — Gulls: American Coot: CL, one to four during period. WHR

4 Jan. (67). Common Snipe: maximum numbers: 6 Dec. (25). Least Sandpiper: SF 13 Dec. (11) 10 Jan. (9) and 28 Feb. (2). Herring Gull: Maximum numbers 14 Feb. (4). Ring-billed Gull: maximum numbers 28 Feb. (125).

Flycatchers — Waxwings: Eastern Phoebe: Singles 6 Dec., 13 and 28 Feb. Common Crow: Maximum numbers 6 Dec. (400). Golden-crowned Kinglet: One to three most trips afield. Ruby-crowned Kinglet: One found most trips. Water Pipit: SF 17 Jan. (10), 31 Jan. (2) and 28 Feb. (8).

Warblers — Sparrows: Myrtle Warbler: 6 Dec. (1) then none till 13 Feb. Maximum number 28 Feb. (20). Redwinged Blackbird: Maximum number 13 Dec. (100), with one to two in Jan. and up to twenty in Feb. Rusty Blackbirds: 13 Dec. (500 in one flock). Common Grackle: Virtually moved out of area. WHR 4 Jan. (10000 estimated in one flock). Purple Finch: 17 Jan. (1). Very few this season. Savannah Sparrow: Present in varying numbers. Maximum numbers 7 Feb. (100). Vesper Sparrows: 7 Feb. (10). Fox Sparrow: Regular thru season.

Locations: CL—Chickamauga Lake, MP—Morse's Pond, SF—Savannah Flats, WHR—Woods Hole Reservoir.

Observers: Ralph and Carol Bullard, Maxine Crownover, Kenneth Dubke, Adele West.

KENNETH H. DUBKE, 3302 Navajo Drive, Chattanooga, Tenn. 37411

KNOXVILLE—**Ducks — Jays:** Redhead: 8 to 14 birds, 18 Jan. thru February. Woodcock: more common than normal, 22 Jan. into March; Blue Jay: practically absent all winter.

Blackbirds: Baltimore Oriole: 2 Feb. thru March (JBO) one bird; Rusty Blackbird: 22 Feb. (50) with several records thru March.

Finches: Purple Finch: comparatively scarce; Oregon Junco: (2) during all of Jan. (PP); 17 Jan. (1) (JC); 3 Feb. (1) (ME); Tree Sparrow: 2-3 Feb. (1) (MS); 28 Feb. (1) CL (BL and ME); Lincoln's Sparrow: 3-6 Feb. (1) (ME), second winter record for Knox County.

Locations: CL—Cove Lake.

Observers: JC—James Campbell, ME—Mary Enloe, BL—Beth Lacy, JBO—J. B. Owens, PP—Paul Pardue, MS—Maxie Swindell.

JAMES T. TANNER, Route 10, Knoxville, Tenn.

GREENEVILLE.—**Herons:** Great Blue Heron: one, 1 Feb., one, 22 Feb.; Green Heron: one, 27 Feb., A (RN).

Ducks: Mallard: 13 Feb. (32) RF (RN).

Hawks: Sparrow Hawk: two, 22 Jan.; two, 28 Feb., made nest in cornice of house, A (RN).

Grouse — Bobwhite: Ruffed Grouse: present through the season; BM (RN); Bobwhite: present through the season; A and M (RN).

Snipe: Common Snipe: one, 27 Feb. and 28 Feb., RF (RN).

Doves: Mourning Dove: present through the season, D (ED); cooing, 27 Dec., A (RN).

Kingfishers — Phoebes: Belted Kingfisher: one, RF (RN); Flicker, Red-bellied Woodpecker, Yellow-bellied Sapsucker, Downy Woodpecker: all present through the season, D (ED); Eastern Phoebe: one, 11 Feb., one 23 Feb., two 24 Feb., one singing, 28 Feb., RF (RN).

Larks: Horned Lark: flocks present 1 Dec. to 28 Feb., A (RN).

Chickadee — Wrens: Carolina Chickadee, Tufted Titmouse, Bewick's Wren, 1 Dec. through 28 Feb., D (ED); Bewick's Wren, one 24 Feb., G (TC).

Mockingbirds — Bluebirds: Mockingbird, Brown Thrasher: one, Robin

Dec. through Feb., D (ED); Robin: flocks, 15 Feb., A (RN); Eastern Bluebird: 15 Feb., G (TC); through the season, D (ED); 12 Feb., A (RN).

Starlings: Present through the season, D, G, A.

Warblers: Myrtle Warbler: two, Dec. through Feb., D (ED); one, 16 Feb., G (TC); one, 20 Feb., 26 Feb., A (RN).

Blackbirds: Rusty Blackbird, Common Grackle: very large flocks passing over, 1 Feb., A; large roost at L; Common Grackle: Dec. through Feb., D (ED).

Finches — Cardinal: present through the season; Purple Finch: 4 Feb., A (RN); 8-10 Feb., D (ED); 25 Feb., G (HS); American Goldfinch, Rufus-sided Towhee: Dec. through Feb.; Slate-colored Junco: small flocks, 8-10 Feb., D (ED); Oregon Junco: one, 10 Dec. through Feb., G (DC); Chipping Sparrow: two singing, 17 Feb., Field Sparrow: 8-10 Feb., D (ED); Fox Sparrow: one, 22 Jan., WM (WE); Song Sparrow: 8-10 Feb., D (ED).

Locations: A—Albany, D—DeBusk, G—Greeneville, WM—White's Mill, RF—Roaring Fork, BM—Bluff Mountain, M—Marvin, L—Lowlands.

Observers: ED—Elva Darnell, TC—Turner Clinard, DC—Dot Clinard, HS—Helen Spees, WE—Wilwa Ervine, RN—Ruth or Richard Nevius.

RICHARD NEVIUS, Route 3, Greeneville, 37743

BRISTOL.—**Loons — Grebes:** Common Loon: 6 Dec. (2) BL; 26 Dec. (1) SHL; Horned Grebe: 6 Dec. (1) BL; 26 Dec. (11) SHL; Pied-billed Grebe: 6 Dec. (1) BL; 26 Dec. (1) SHL.

Herons — Mergansers: Great Blue Heron: regular in Dec. SHL; Black Duck: 26 Dec. (1) SHL; American Widgeon: 15 Jan. (3) SHR; Redhead: 28 Feb. (1) SHR; Lesser Scaup: 26 Dec. (11) SHL; 31 Jan. (1) SHL; Common Goldeneye: 26 Dec. (33) SHL; 15 Jan. (1) SHR; Bufflehead: 5 Dec. (15) SHL; 22 Dec. (2) SHL; 29 Dec. (3) SHL; Hooded Merganser: 6 Dec. (2) BL.

Vultures — Falcons: Turkey Vultures: common Dec. to Feb.; 29 Dec. (23); Black Vulture: 21 Dec. (3); 22 Feb. (1); Red-tailed Hawk: 21 Dec. (1); 29 Dec. (1); Red-shouldered Hawk: 29 Dec. (1) SHL; 11 Feb. (1) SV; Marsh Hawk: 21 Dec. (1); Sparrow Hawk: regular and common.

Killdeer — Owl: Killdeer: scarce Dec. to March; 15 Dec. (10); 18 Jan. (6); 22 Feb. (15); other scattered records; Common Snipe: 26 Dec. (2) SMM; 22 Feb. (1); 28 Feb. (8); Ring-billed Gulls: common, exceptional numbers: 26 Dec. (92) SHL; 13 Feb. (100) SHL; Screech Owl: six records 18 Dec. to 8 Feb.

Woodpeckers — Flycatcher: Yellow-shafted Flicker: scarce, four Dec. records, two since; Red-bellied Woodpecker: scarce, five records 20 Dec. to 28 Feb.; Red-headed Woodpecker unrecorded for first time in several years; Yellow-bellied Sapsucker: unusually scarce; 6 Dec. (1); 19 Jan. (1); Hairy Woodpecker: 26 Dec. (2); 28 Dec. (1); Phoebe: 22 Feb. (1) Va.

Nuthatches — Bluebirds: White-breasted Nuthatch: more common than in summer; Red-breasted Nuthatch: unrecorded; Bewick's Wren: 26 Dec. (2); Brown Creeper: only report 31 Jan. (2); Robin: scarce 31 Jan. or before; 26 Dec. (27) Va.; common after 22 Feb.; Bluebirds: good numbers and regular.

Kinglet — Warbler: Ruby-crowned Kinglet: 13 Feb. (1); 25 Feb. (1); Cedar Waxwing: unreported until Feb.; maximum 24 Feb. (200); Loggerhead Shrike: common and regular; Myrtle Warbler: somewhat scarce; 26

Dec. (2); 18 Jan. (1); 7 Feb. (6).

Blackbirds — Finches: Redwinged Blackbirds: unreported in winter first time in several years; early transients 22 Feb. (200) Va.; Baltimore Oriole: one wintered from late Dec. to 1 March (WC) Va.; Common Grackle: recorded late until 26 Dec. (35); maximum 21 Dec. (150) Va.; increasing 21 Feb. and common 28 Feb.; Brown-headed Cowbird: status parallels that of Redwinged Blackbird in past years and this season being unrecorded first time in several winters; transient 22 Feb. (400) Va.; Evening Grosbeak: 19 Dec. (1) (HCE); 20 Dec. (1) (HCE); 1 Feb. (1) (HCE); Purple Finch: 21 Jan. (6) (HCE); 1-2-3 Feb. (3) (FRB); 26 Feb. (12) (HCE); Rufous-sided Towhee: scarce 22 Dec. (1); 25 Feb. (1); White-crowned Sparrow: scarce, one record 22 Feb. (1) Va.; White-throated Sparrow: fairly common, less abundant than in fall; Fox Sparrow: unrecorded.

Locations: BL—Boone Lake, SHL—South Holston Lake, SHR—South Holston River near Bristol, Tenn., SMM—Stone Mill Marsh, Abingdon, Va., SV—Shady Valley, Va.—Virginia record near Bristol.

Observers: FRB—Fletcher R. Bingham, WC—Wallace Coffey, HCE—H. C. Epperson, TH—Tim Hawk, BQ—Bob Quillen, CS—Charles Smith, RS—Roger Stone.

WALLACE COFFEY, 508 Spruce Street, Bristol, Tennessee 37622

ELIZABETHTON.—**Grebes — Mergansers:** Pied-billed Grebe: 23 Jan. (1), BL. Great Blue Heron: 23 Jan. (2), BL. Mallard: 23 Jan. (9); 27 Feb. (16). Black Duck: 23 Jan. (115); 27 Feb. (52). Gadwall: 27 Feb. (18). American Widgeon: 27 Feb. (24). Redhead: 26 Jan. (4), BL (HD); 27 Feb. (25), BL. Ring-necked Duck: 23 Jan. (10); 27 Feb. (2). Canvasback: 23 Jan. (23), BL (LRH, CRS). Lesser Scaup: maximum, 23 Jan. (101), on BL and PHL, with one bird remaining on WiL (JCB, RDM). Common Goldeneye: maximum, 23 Jan. (58), with one bird remaining on WiL (JCB, RDM). Bufflehead: 23 Jan. (2); 26 Jan. (1). Common Merganser: 27 Feb. (1).

Hawks — Chickadees: Sparrow Hawk: 23 Jan. (1), near BL. American Woodcock: 12, 21, 28 Feb. (1). Common Snipe: 1 Feb. (2); 28 Feb. (3), near MC (CRS). Herring Gull: 23 Jan. (2), BL; 27 Feb. (3), PHL (LRH). Ring-billed Gull: 23 Jan. (87); 27 Feb. (69), BL. Barred Owl: 26 Feb. (2), (FWB). Hairy Woodpecker: 30 Jan. (1), near MC (CRS). Horned Lark: 11 Feb. (4); 20 Feb. (2). Raven: 28 Feb. (2), BM (FWB). Black-capped Chickadee: 28 Feb. (1), BM (FWB).

Nuthatches — Finches: White-breasted Nuthatch: 28 Feb. (1). Red-breasted Nuthatch: 14 Feb. (3), RM (FWB). Hermit Thrush: 23 Jan. (1). Cedar Waxwing: 6 Feb. (15). Loggerhead Shrike: 27 Feb. (1). Purple Finch: 16 Jan. (3); 11 Feb. (1); 27 Feb. (6). Savannah Sparrow: 27 Feb. (5). Fox Sparrow: 6 Feb. (2); 11 Feb. (2). Swamp Sparrow: 6 Feb. (3); 11 Feb. (2).

Locations: BL—Boone Lake, BM—Beech Mountain, MC—Milligan College, PHL—Patrick Henry Lake, RM—Roan Mountain, WiL—Wilbur Lake.

Observers: FWB—Fred W. Behrend, JCB—J. C. Browning, HD—Mrs. Harold Dillenbeck, LRH—Lee R. Herndon, RDM—Roby D. May, CRS—Charles R. Smith.

CHARLES R. SMITH, Route 2, Johnson City, Tennessee 37601.

Errata: The photo in the December issue, page 98, depicting an adult Chuck-wills-widow, was copied from a painting made by John J. Audubon.

ROUND TABLE NOTES

SANDHILL CRANES IN CUMBERLAND COUNTY

By JAMES C. LEWIS

On 14 March 1961, I was driving a country road near the Hebbertsburg Community in northeastern Cumberland County. It was at daybreak, but my headlights were still on due to a heavy fog. A Sandhill Crane *(Grus canadensis)* was standing in the road and was momentarily confused by my headlight beams. I stopped the car about 30 feet from the crane and the red forehead was readily visible. After about 20 seconds it flew off in the fog.

On 4 March 1965, I observed another Sandhill Crane on the Catoosa Wildlife Management Area, northern Cumberland County, Tennessee. It flew from the center of a field at about 11:00 a. m. It was observed for two minutes circling and attempting to fly against a strong southerly wind before finally flying in an easterly direction. Intermittent snow flurries had characterized the morning's weather and although 75 percent of the ground had a light snowcover, I was unable to find tracks that would indicate the bird had moved about to feed. The vegetation was short and sparse due to a fire the previous spring and mowing the previous fall.

Under the circumstances I assume that both birds were resting from the exertions of flight and in the case of the crane observed on the road it may have chosen the first open place found in the dense fog. Both observations were made 10 to 15 miles north or northeast of Crossville, Tennessee.

I had previously observed the Sandhill Crane on the southern Michigan nesting grounds. I was, therefore, familiar with the appearance of the crane although unacquainted with the eastern migration route. This route follows a straight line from southeastern Georgia to northwestern Indiana (Walkinshaw, L. H., 1960. Migration of the Sandhill Crane east of the Mississippi River. Wilson Bulletin 72(4):358-384).

The spring migration begins in March and early April from south Florida. Cranes have been observed in southern Michigan as early as late February. The peak of arrivals in northwestern Indiana is mid-March to early April (Walkinshaw, 1960).

Dr. Walkinshaw (1960) reported only five recent records of Sandhill Cranes observed in their spring migration thru Tennessee. These observations were from Hamilton, Cumberland, Knox, Anderson and Shelby Counties and varied from 1 February to 1 June. The previous Cumberland County record was by T.O.S. member, Paul Adams, who observed 13 cranes on 13 March 1939, on the ground at 7:30 a. m. (Adams, 1939, THE MIGRANT). Walkinshaw also reported four fall records for Tennessee.

The paucity of observations is probably due to several factors. Cranes migrate at high altitudes and would not normally be recognized from the ground. Walkinshaw felt that the cranes migrate from the Okefenokee Swamp to the Jasper-Pulaski State Game Preserve, Indiana, in a 24 hour flight without stopping except for short rests or inclement weather. If they left the Okefenokee at dawn, most of the flight over Tennessee and Kentucky would be at night.

TENNESSEE GAME AND FISH COMMISSION, Nashville.

VERMILLION FLYCATCHERS AT REELFOOT LAKE.—Two male Vermillion Flycatchers (*Pyrocephalus rubinus,* Boddaert) were sighted at Reelfoot Lake, Obion County, Tennessee on 15 October, 1961. These birds were feeding around the cypress trees in the west side of Upper Blue Basin at the north end of Reelfoot Lake. It was about 11:00 a. m., gusty, and about 50° F. Observers were four of the Arlo Smith family of Memphis and five guests who were boating on the lake. Dr. Smith had his camera with him and obtained several color pictures with his 180 m.m. telephoto lens. These pictures have been shown at meetings of the T. O. S.

The Smiths saw the flycatchers in a small flock with eight or ten Myrtle Warblers and paid little attention to the latter. It was not until later, while reading up on the flycatcher in Imhof's "Alabama Birds," that the sad fact was realized that further opportunity might have been missed in assuming that all were Myrtles. Imhof states, "Although female and immature birds strikingly resemble the Myrtle Warblers in color, they act very much like a small phoebe." It is very likely that there were more Vermillions present but, in the excitement of photographing the males, the "Myrtle Warblers" escaped closer observation.

The Myrtles and one male Vermillion moved off as they darted after insects, but one male remained in a tree where he was observed for a period of about fifteen minutes. He would perch on the tip of a dead branch and then suddenly fly out after an insect and return to watch for more. He apparently paid no attention to the observing party below as they were deployed in three boats at a distance of twenty to thirty feet. The photography was quite successful despite the problems of a drifting boat in the gusty wind and a bird that would dart after an insect just when he was at last in focus.

There are apparently no previous reports of the Vermillion Flycatcher having been seen in Tennessee. After the pictures were shown at the Annual Meeting of the T. O. S. at Reelfoot in May 1964 however, a U. S. Wildlife worker reported also having seen a Vermillion at the south end of the 12-mile long lake that same fall. Lowery, in his "Louisiana Birds" reports a few scattered Vermillions are regularly present in Louisiana, arriving in October and leaving in March. The birds are usually seen in the City Park in New Orleans, mostly near a small pond edged by willow trees.

The Vermillion is a bird of the Southwestern states and Mexico, reportedly breeding from southern Nevada, New Mexico and south Texas, south to Chile and Argentina. Imhof reports "In winter North American birds fly irregularly west to San Diego and east to Tallahassee." Alabama reports indicate the Vermillion as occasional visitor along the Gulf coast during the fall to winter of 1943, 1948, 1954, 1956, 1958, and 1960, particularly preferring to perch low over water, especially in live oaks. It is not known to nest either in Louisiana or Alabama. Reelfoot Lake is about 450 miles from the Alabama coast and 900 miles from the lower Rio Grande of south Texas.

ARLO I. SMITH, 3724 Oakley Ave., Memphis.

VERMILION FLYCATCHER IN KNOX COUNTY—A male Vermilion Flycatcher (*Pyrocephalus rubinus mexicanus*) in first winter plumage was observed for two days, 21 and 22 October, 1964 by Mr. and Mrs. Tom

Walton, 102 Smoky View Road, Knoxville.

I watched the bird late in the afternoon of the second day for about an hour. It spent the time in or near the Walton's yard and used perches such as a telephone wire, a clothes line and leafless branches from which it caught insects in typical flycatcher manner. Several times I was no more than 25 feet from the bird and studied it through 8 x 40 binoculars. Its underparts were bright red except for a white throat with faint dark streaks. The red on its head was confined to the back of the crown but a sprinkling of red specks could be seen on the blackish brown front part of the crown and the forehead. The remainder of the plumage was the normal blackish brown, including the characteristic eye streak. I have seen Vermilion Flycatchers only in fully adult plumage and none of my reference books, which include Bent, have any details on in-between plumages, so I wrote the Smithsonian Institution in the hopes of getting some definite information. Dr. Philip S. Humphrey, Curator, Division of Birds, replied:

"The male vermilion flycatcher which you saw on October 22 just outside the city of Knoxville is almost certainly a bird of the year, that is to say, a bird which is less than one year old. Such males characteristically have a white throat bordered by faint brown streaks; the white area is variable in size. The crown of first year males is actually brown with a red area in its center. The red area is usually partly obscured by the brown feathers bordering it."

A second bird often associated with the Flycatcher and behaved in the same manner. Mr. and Mrs. Walton strongly believe it was a female. But due to its less conspicuous markings and shyer behavior during my visit, I can only say with certainty that it could have been a female Vermilion Flycatcher.

The temperature, which had been fairly warm, dropped that night and neither bird was seen again although TOS members made searches for several days.

J. B. OWEN, 2930 North Hills Blvd., Knoxville, Tennessee

RECENT OBSERVATIONS ON THE SAW-WHET OWL IN G.S.M.N.P. —". . . The Saw-whet Owl is regarded as an uncommon permanent resident in the spruce-fir forests of Great Smoky Mountains National Park. So far (1962), no nest, eggs or young birds have been observed here." (Stupka, 1963, Notes on the Birds . . .). This status has not substantially changed. However, with the hope that someone will be encouraged to systematically attack this problem, I present some of my own experiences.

To begin with, I have been able to add to the number of known calling stations:

While conducting hikes to Charlies Bunion, I've twice heard an owl calling from the slope below Ice Water Springs Shelter. Both observations were made in June in the early afternoon (1-2 p.m.).

At approximately 8 p.m. on 19 May, 1962, I heard an owl calling from the woods just below Walker Prong, on Rt. 441, 4600′. A few days later an owl was heard to call from between Newfound Gap and Walker Prong. I suspect this was a different owl whose calling territory is adjacent to that of the one at Walker Prong.

On 22 May, 1963, at 11:30 p.m., I stopped at Newfound Gap and imitated the call of the owl. Almost immediately an owl called from the evergreens near the Rockefeller Memorial. I approached and saw a small owl fly further into the woods. I was able to get within 25 feet of the owl by starting up the Appalachian Trail. The owl did not appear frightened by the light and afforded a good view.

While driving up Rt. 441 on 27 July, 1964, I saw an owl sitting beside the road. It did not fly up on my approach and I was able to capture it. It snapped its bill upon being picked up but struggled very little. It showed signs of being weak and having trouble balancing. I kept it for two days and on the third morning it had died. The bird was a male whose gonads measured 4mm. long and 2mm. wide. No broken bones nor brain hemorrage was found and the gizzard was empty. The bird may not have been hit or stunned by a car but this seems most likely. The bird was prepared as a museum skin and has been deposited in the Park collection.

On numerous occasions I have visited a particular area wherein I have had good success in locating an owl. This area is located on the Clingmans Dome road, between Indian Gap and the Spruce-fir Nature Trail. By walking from the pull-off through a pole-stand to the Appalachian Trail one approaches the perimeter of the territory of the owl. Approximately 75 yards on the other side of the trail is the center of its calling area. It is in this area that the owl starts its calling each evening. Nearby the trees from which it calls there is a small stream. The immediate area is grown over with rhododendron. One evening I made my way to this spot before sunset and waited. The owl soon began to call from one of the trees but quickly left this perch for one up the slope. I followed it for about an hour up the slope, along a ridge and back to the Trail at a point about 150 yds. above where I had entered. I strongly suspect a pair of owls nest within this area each year. Further, a systematic survey of all the trees with holes would reveal the nesting site.

The Saw-whet is known to move (migrate?) considerable distances outside of the breeding season. Further, low elevation observations have been made only in February and March. Thus, it seems likely that the Saw-whet performs a vertical migration in the Smokies, nesting at or near the main crest in the spring or summer.

The calling season extends from April through June. There are two types of call notes which I have heard: They are both repeated numerous times and can be heard for considerable distances; one is a clear, somewhat double-noted whistle, the other has the same basic pattern but with a more ringing quality. The latter type suggests the quality of the introductory notes of the tropical Bell-bird. I would assume that these notes are functional during the nesting season.

There are eight known calling stations along a transect from Clingmans Dome to Ice Water Springs with a side spur down to Walker Prong. Assuming the owls maintain a relatively restricted nesting territory (with its associated calling stations), it would appear that this species is well represented along the main crest in the spring and summer.

THOMAS SAVAGE, Great Smoky Mountains National Park.

A GREAT HORNED OWL HUNTING IN FULL DAYLIGHT.—The 55 acre Bush Lake is in an open area and is an excellent place for observing water birds. It is ringed by trees, but these average over 50 feet apart and are some 6 inches in diameter and about 20 feet in height. On 29 Dec. the writer drove most of the way around the lake and while near the middle of the west side saw what appeared to be a very large hawk perched on a small limb only about five feet above the water. He stopped, focused his binoculars, and was surprised to see the large rounded head of an owl. The bird was constantly turning its head back and forth in about an 180 degree arc and seemed to be scanning an area from the bank on one side, across perhaps a radius of 30 to 50 ft. of water to the bank on the other side, then back again. Immediately the large "horns" of the Great Horned Owl were apparent. The time was 3:00 p. m. and the sky was clear and the sun bright. Three times the writer drove forward and flushed the owl and each time it would fly about 200 feet and find a new perch similar to the one above and go through the same hunting procedure. It is the belief of the writer that it spent more time searching the waters surface than on the edges of the bank. The short grass of the bank must have been full of mice and, as we had enjoyed several days of unusually warm weather, there were many turtle heads just above the waters surface. What was it really after? Time did not permit a stay to find out. Such actions by a Barred Owl would not have seemed unusual except for the time of day, but if this Great Horned really was looking for food from the water it would seem a most unusual occurance. The last time the owl flushed it flew directly across the lake at only a few inches above the water as a kingfisher sometimes does. As there were some 200 ducks and coots on the lake why didn't it attempt to take one of these?

HENRY E. PARMER, 3800 Richland Ave., Nashville, Tenn. 37205.

FIND YOURSELF A SMALL LAKE—When spring migration is over and the summer birding doldrums begin, find yourself a small lake or a large pond and brush up on your shorebirds. You may be starting a new phase of year round birding, which will give you a lot of pleasure and could easily add some new data to your local bird lore. Shorebird spring migration continues up into early Summer, and by the time the last have left for the far north, some of the earlier birds have completed their nesting chores on the arctic tundra and have returned on their long southward journey.

I stumbled upon Coleman's Lake in the Fall of 1960 and was surprised to find on this small lake American Widgeon, Shovelers, Lesser Scaup, Killdeer, Common Snipe, Pectoral Sandpipers and Dunlin. This first jackpot was enough to bring me back almost weekly since then. There is nothing very unusual about Coleman's Lake. In fact there must be hundreds like it. It is only about ten or twelve acres in area, formed by an earth dam with a gravel road across it. It is in the middle of a subdivision on the north edge of Davidson County, about a quarter of a mile west of the Cumberland River, and two miles down stream from Old Hickory Dam. Residential lawns extend down to the water on one side, and the rest is mostly wooded. It is a favorite place for bank fishermen. For parts of each winter it is frozen over. The water level will vary four or five feet during the year, which during the dry summer and fall months will expose mud flats at the upper end and along the sides. This makes it attractive to shore birds.

The best way to illustrate the pleasure I have derived from this lake is the list below of the shorebirds and waterfowl I have seen over the last four years. Please forgive me for being old fashioned and only showing the Dowitchers as a single species. I have seen both species there, but rarly do they "keek" or "tu-tu" clearly enough to be sure, and their plumage differences in the field are beyond me.

SHOREBIRDS AND WATERFOWL AT COLEMAN LAKE

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
Horned Grebe					x							
Pied-billed Grebe			x	x								
Green Heron				x	x	x	x	x	x	x		
Black-cr. Night Heron					x					x		
Canada Goose			x	x	x					x		
Mallard	x											x
Black Duck	x											x
Gadwall					x	x						
Blue-wing Teal			x	x	x	x		x	x	x		
American Widgeon	x		x		x						x	
Shoveler				x							x	
Redhead				x								
Ring-necked Duck		x	x	x								
Canvasback	x		x								x	x
Lesser Scaup	x		x	x	x		x				x	
Common Goldeneye	x											
Bufflehead											x	x
Ruddy Duck			x	x								
Hooded Merganser			x									
Coot					x					x		
Semipal. Plover								x	x			
Killdeer				x	x	x	x	x	x	x	x	x
Common Snipe									x	x	x	x
Spotted Sandpiper				x	x		x	x	x	x	x	
Solitary Sandpiper				x	x		x	x	x			
Greater Yellowlegs								x	x	x		
Lesser Yellowlegs								x	x	x		
Pectoral Sandpiper							x	x	x	x	x	
Baird's Sandpiper									x			
Least Sandpiper					x	x	x	x	x			
Dunlin									x	x	x	x
Dowitcher								x	x			
Stilt Sandpiper								x	x			
Semipal. Sandpiper					x		x	x	x			
Sanderling									x	x		
Ring-billed Gull			x									
Bonaparte's Gull				x							x	

Occasionally some small special event will occur which will add a little extra pleasure, like watching a Solitary Sandpiper and a Lesser Yellowlegs, with their necks extended and their needle bills just a fraction of an inch apart, have a disagreement — or Canada Geese peacefully grazing in the early morning on a lawn — or a Long-billed Dowitcher shouting defiance with a loud "keek" — or an unusually large number of species, as the twelve reported by Henry Parmer in the September 1962 Migrant — or finding a bird enough out of season, like a Horned Grebe in late May or a Dunlin in late December, to warrant mention in THE MIGRANT and the Audubon Field Notes.

For those of you who are not too familiar with shorebirds, the study of them has many advantages. They are of fairs size, and they generally prefer open shores or mud flats, where they can readily be seen. Since they are relatively tame, with a little caution they can be approached to within good binocular range. As with other bird families, identification is a problem, but familiarity tends in some measure to solve this. Unfortunately just about the time you begin to think that you can tell a Least Sandpiper from a Semipalmated, you encounter a peep, or a flight of peeps, and you can not decide whether they are lighter or buffier, larger or smaller, or are their bills thicker or thinner than the ones you saw before. Then there is the problem of the legs. Are they black, or are they just covered with mud? Then there is the one that is just somehow a little different. Could it possibly be a wandering Western or a Baird's? If it is and you are alone, how would you ever convince anyone that it was? Oh for a shotgun! Then back to your guide books, and a few days later you will be fighting that urge to go see what that cold front the night before brought to your favorite mud flat. So for year round interesting birding, especially in July and August, find yourself a small lake.

LAURENCE TRABUE, 3819 Harding Place, Nashville, 37215.

OSPREY NEST ON WATTS BAR LAKE—This is follow up on the nesting attempt of the Osprey *(Pandion haliaetus)* on Watts Bar Lake at Ten Mile, Tennessee. This nest was written about earlier, in detail, by J. B. Owen (MIGRANT 1963, 64, 60-62). On 2 June 1964, this writer climbed up and inspected the nest of the incubating bird and found only one egg.

In a recent letter from Mr. Owen on the status of this nest he referred me to a Mr. and Mrs. Woodford Spencer, 111 Albany Road, Oak Ridge, Tennessee, who often spend weekends on the lake camping and boating with their children. They have also taken a keen interest in this pair of Osprey and have checked on them whenever they were in the area. In correspondence with Mrs. Spencer she stated the Osprey have been present every year since 1958. They may have been present earlier but this is when the Spencer's purchased a lake front lot thus placing them in the area regularly.

This year the Spencer's had planned more detailed observations, but because of other commitments were not present during most of the prime fledgling period. Mrs. Spencer noted they saw an Osprey on the nest 31 May and then they were not in the area again till 14 June. On this date, writes Mrs. Spencer, they were checking on a report of an eagle near the entrance of White's Creek. They didn't find any eagle but . . . "did see what appeared to be an Osprey nest on the channel marker at White's Creek entrance, but no Osprey were around. On the way back to our place (their lot) we saw two Osprey flying toward White's Creek. We hoped to find that there were two pairs, so we hurried back to Euchee marker, but it was deserted. We waited 35 minutes for them to return, but they did not. We never saw them again, although in July and August we looked for them often." On 26 July they let their two sons climb up to see what had happened to the egg. It was not there and they could not find any remains of the shell.

It should be noted with this very limited amount of data, and especially since no one looked in the nest from 2 June to 26 July, it is very difficult to ascertain whether this nesting was successful and most certainly a great deal more information is desired. Perhaps, with permission from the U. S. Coast Guard, the Spencer's could climb both navigational markers and inspect regularly the nests during the breeding season and report their findings to us.

KENNETH H. DUBKE, 3302 Navajo Dr., Chattanooga 11.

LAWRENCE'S WARBLER AT COLUMBIA.—A Lawrence's Warbler (hybrid: *Vermivora chrysoptera* x *V. pinus)* was clearly seen by George R. Mayfield, Jr. at the upper pond on the Jewell farm about 5 miles southwest of Columbia. The warbler was seen about 15 feet high in a group of willow trees on the edge of open land from at first 50 yards and later as close as 20 yards. It was first identified as a Golden-winged Warbler *(V. chrysoptera)* by the obvious face pattern until suddenly the completely yellow breast was noted. There were no deviations from the typical form illustrated in A Field Guide to the Birds (Peterson, 1947). The bird was found at 5:30 p. m. on 21 Sept., 1964. In the last four years, two additional Lawrence's Warblers and one Brewster's Warbler (hybrid: *V. chrysoptera* x *pinus)* have been seen in the area by members of the Gray family.

GEORGE R. MAYFIELD, Jr., Maury County Hospital, Columbia.

OPERATION BLUEBIRD.—Girl Scouts of the Cumberland Valley Council (Middle Tennessee, and adjoining Kentucky Counties) own a 700 acre campsite in Cheatham County, four miles north of Ashland City. It is operated as a wildlife refuge. The area consists of 200 acres of pasture, 50 acres of cutover land, and 450 acres of heavy deciduous growth. Sycamore Creek and several smaller streams run through the tract.

In 1959, 1960 and 1961, there was a stable resident population of 6 or 8 Eastern Bluebirds. In the late winter of 1961-62 (February, 1962), a number of troops built Bluebird houses, and put them up on poles in the pastured area. Ten houses were placed, but the placement was much too close together in some cases.

Five of the nests were used. One nest hatched out three broods successfully. It contained five 12-day old birds on 12 May, four, week old birds on 18 June, and four two-day old birds on 28 July. These last left the nest 13 August. This is a total of 13 birds from this nest. Two other nests hatched at least two broods each (whether there was a third brood is not certain in either case). Two nests hatched one brood each.

Population of Bluebirds in the box areas has, of course, gone up phenomenally. With so many Bluebirds in what is essentially a small part of the campsite (all nests are within a 70 acre area), an accurate count is difficult. Several counts of birds observed along a stretch of dirt road running 0.5 miles through the area range from 9 to 12 birds, mostly immature. Best estimate of population as of 15 August, based on counts, is 35-40.

The number of boxes will be increased for 1963, and their area of placement expanded.

LOUIS FARRELL, Nashville TOS.

LONG-EARED OWL AT CHATTANOOGA. — Gene Mills, Waldens Ridge Taxidermist, reported a Long-eared Owl (*Asio otus*) as having been prepared in his shop during February 1962 for a boy, Ron Nixon of Chattanooga. It was not until February 1965 that the information was uncovered by the writer. To confirm the species a visit to the Nixon's home was scheduled by the author and Kenneth Dubke. The fine specimen was found as a dining table centerpiece.

Young Nixon stated that on 30 January 1962 he was rabbit hunting in a pine thicket about 100 feet behind Brown's Grocery on Taft Highway, Signal Mountain, when he found the bird. Ron related that the owl was sitting close to the trunk of a pine tree when it made a noise before it flew. He then shot it. Elevation of the site is between 1800 and 2000 feet.

Even though there are other Tennessee records of the Long-eared Owl, this is the Chattanooga area's first.

RALPH T. BULLARD, JR., 324 Lafayette Road, Chickamauga, Georgia

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AN ERYTHRISTIC SONG SPARROW.—On 15 November, 1964, Mabel and Kenneth Sanders showed me an erythristic (abnormally red) Song Sparrow (*Melospiza melodia*) on a farm southeast of Knoxville. The upperparts were a rich reddish-brown with black markings in the usual places. The underparts were almost the same color except for a small gray area on the belly. Breast streaking and spots were absent or inconspicuous. The bird associated with normal Song Sparrows and called and acted like one. 29 November was the last date the Sanders could find the bird.

JAMES T. TANNER, Route 10, Knoxville, Tenn.

FIELD TRIP TO DUCK RIVER SANCTUARY NEAR WAVERLY.— On 21 Nov. Doctors Mayfield, Gray, Fuqua, and Dan Gray III were joined by Miss Wood and Mrs. Elmore of the Nashville Chapter for a trip thru the Duck River Sanctuary. A total of 59 species of birds were seen including 3 eagles, two of which were Bald Eagles, about 2000 Canada Geese, 50 Blue Geese, and 5 Snow Geese. Among a number of species of ducks, there were about 1000 Mallards and 15 Hooded Mergansers. Eight species of sparrow including Savannah, Vesper, Field, White-crowned, White-throated, Fox, Swamp, and Song were found. 200 gulls were noted but were too far away for absolute identification. It is interesting that one Bald Eagle seen from the ground had both white head and tail, whereas two additional eagles were seen only from the airplane flying over the refuge. One of these had some white where the other had none. The Snow Geese and Blue Geese were only found with the use of the airplane.

GEORGE R. MAYFIELD, JR., Maury County Hospital, Columbia.

Errata: In the table headings Vol **35:45** the last two column headings, Elizabethton and Bristol should be reversed to correspond to the correct counts.

BOOK REVIEWS

A NEW DICTIONARY OF BIRDS.—Edited by Sir A. Landsborough Thompson with prefaces by Dr. Austin L. Rand, president of the American Ornithologists' Union and R. E. Moreau, president of the British Ornithologists' Union. 928 pages, illustrated with 16 pages of color plates, 32 pages of black-and-white photographs and more than 300 line drawings. McGraw-Hill Book Company, 330 West 42nd Street, New York, N. Y. 1964. $17.50.

The publication of this book was the result of one of three projects undertaken by the British Ornithologists' Union in celebration of their centenary in 1959. It was designed for those who have a general interest in birds but containing much material of special interest to professional ornithologists and biologists. It is world wide in scope and although every species is not covered in detail representative families are discussed in their various phases from the viewpoint of structure, evolution, distribution, classification, life histories, behavior, adaptations and their relations with mankind.

Many entries are composed of articles of considerable length and some are subdivided according to the requirements of the subject. As an example the subject of Feather Maintenance is divided into Bathing, Drying, Preening, Head scratching, Dusting, Anting, Comfort Movements, Care of Skin and Soft Parts and Smoke Bathing. Lists of major articles on general subjects and bird groups follow immediately the Contents. This provides the reader with ready information on any desired subject for a beginning. The articles are cross-referenced for further pursuit of several phases of the subject under alphabetical headings.

To further illustrate the diversity of related subject matter, a major article is entitled Meteorology with the following sub-headings: Pressure and Wind Systems, Wind Force, Local Winds, Thermal Effects and Convection Phenomena, Atmospheric Moisture and Precipitation, Visibility, The Freezing over of Water Bodies and Samples of Weather Maps. The weather symbols are illustrated for easy interpretation. Statistical Significance is another subject discussed with explanations relative to its applicability to bird study.

More than 200 specialists in various fields, from all continents and 22 countries have contributed to this work to make it the outstanding book of its kind.

This is a book to which you should have access. If you cannot purchase it for your own library it is suggested that your club or chapter purchase one or that your local librarian be persuaded to secure one for reference.

LEE R. HERNDON, Route 6, Elizabethton, Tenn.

BIRDS OVER AMERICA.—By Roger Tory Peterson. New and Revised Edition. Dodd, Mead and Co., New York, N. Y. 1964. 342 pages, 105 photographs (80 pages) by the author. $7.50.

This book was first published in 1948, winning for the author the John Borroughs Award. With few exceptions it is a reprint of the original, however, the material applies today as well as then. The author has birded in all fifty states and for a period of forty-five years. He has selected the most exciting of his experiences, as well as some of those of other prominent ornithologists, and related them in his most interesting manner. He tells of "The Lure of the List," "The Big Day" and "Census at Christmas" as a few of the outstanding experiences which all of us can and do enjoy, whether amateur or professional.

He points out some of the drastic changes which have taken place and are still taking place in our country since the time of Columbus to the present day; population densities; the status of some of our rarer and vanishing species, in a manner which should make us more conservation minded so that we should take action before some more of our species become extinct.

A few of our most famous birding spots are described in detail. Such places as Hawk Mountain, Pennsylvania, where thousands of hawks are seen in a single day; Cape May, New Jersey, where fabulous numbers of birds funnel down the peninsula between Delaware Bay and the Atlantic Ocean, during fall migration and Rockport, Texas where thousands of spring migrants from across the Gulf of Mexico drop in when unfavorable weather conditions are encountered and are thus pinned down temporarily until conditions become more favorable for continuing their northward journey.

The book is enlivened by many amusing incidents which happened to him or others, as for example the identification "decoy" duck or the "bark" silhouette of Long-eared Owl.

The photographs presented are from the best of the many thousands he has taken. Some photographic "tips" are given for those who are interested in bird photography.

This is a book which will bear reading a second time, if you have already read it. If you have not read it, you should. It is a book which non-birders would enjoy and one which should convince those who are mildly interested in birds that they should consider bird study more seriously.

LEE R. HERNDON, Route 6, Elizabethton, Tenn.

ARGEN THE GULL.—by Franklin Russell. Alfred A. Knopf, New York, N. Y. 1964, nine photographs and 239 pp. $4.95.

The author portrays the events during the life history of a Herring Gull. The setting for the story is an island off the coast of Newfoundland where the climate is severe and many additional hazards demand constant alertness for survival. The gullery which Argen shared with many of his own kind as well as with other predatory species necessitated constant guard by his parents until he had matured sufficiently to fend for himself and be ever alert for any catastrophe which might befall him. The sphere of his existence is clearly depicted, particularly, around the gullery, the shoreline around which most of his food was secured, his wanderings over water as well as the land, competition for food and a nesting site in a choice location. Many encounters with natural phenomena and near disaster beset him. Once a wing was broken when buffeted by a storm, for a time he was unable to fly and was forced to avoid land predators as well as those on the wing.

The intricacies in the life of a gull are related in an interesting manner which reveals many facets which would not be obvious to those who have not had the opportunity of visiting a gullery or of observing the conduct of a scavenger in securing a livelihood.

LEE R. HERNDON, Route 6, Elizabethton, Tenn.

THE MIGRANT

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IT'S FOR THE BIRDS.—by S. Vance Cagley. Vantage Press, Ins., 120 West 31st Street, New York, N. Y. 1964. 146 pp. $2.75.

After almost thirty years of inseparable companionship it became eminent that disaster was about to befall the wife of the couple in the form of blindness. The husband conceived a plan of softening the shock of conveying the doctor's diagnosis to her. Without her knowledge, he procured a parakeet which she resented temporarily. However, she soon sensed the situation and it was not necessary to relate to her the impending blindness and the probable operations. The companionship and providing the necessities were so time consuming and enjoyable that little time was left for self-pity.

The bird had a close brush with death but recovered and after several years of affectionate companionship it was accidentally suffocated. Its loss was grieved as a member of the family. It had been such a comfort and so much appreciated that another baby parakeet was secured. Its care, training, including learning to talk, disappearing a few times in which the neighbors were involved brought the couple to their senses.

This book would make an excellent gift or could be used for loan to some friend or acquaintance who might be incapacitated or hospitalized for a few days. In addition to relieving the mind of their ills and making time pass more quickly, it might serve in the same manner as the couple about whom the story is written.

LEE R. HERNDON, Route 6, Elizabethton, Tenn.

BACK ISSUES OF THE MIGRANT.—Appropriate to the completion of another "block" of three volumes with appended index, is a reminder that this is a proper time to check your files for missing numbers. A file of a publication of this kind that is not complete is not only a source of vexation to the owner but depreciates its money value should a sale become desirable in future. Incidentally, a complete set of THE MIGRANT has a value of around $70.00. Members no longer desiring to keep their back issues would confer a favor on the T. O. S. by mailing them to the Curator for adding to his stock. Most back numbers are still available, ranging in price from 36 cts. upward. These are stocked and sold for the benefit of our publication fund by the Curator, Albert F. Ganier, 2112 Woodlawn Dr., Nashville, Tenn. 37212.

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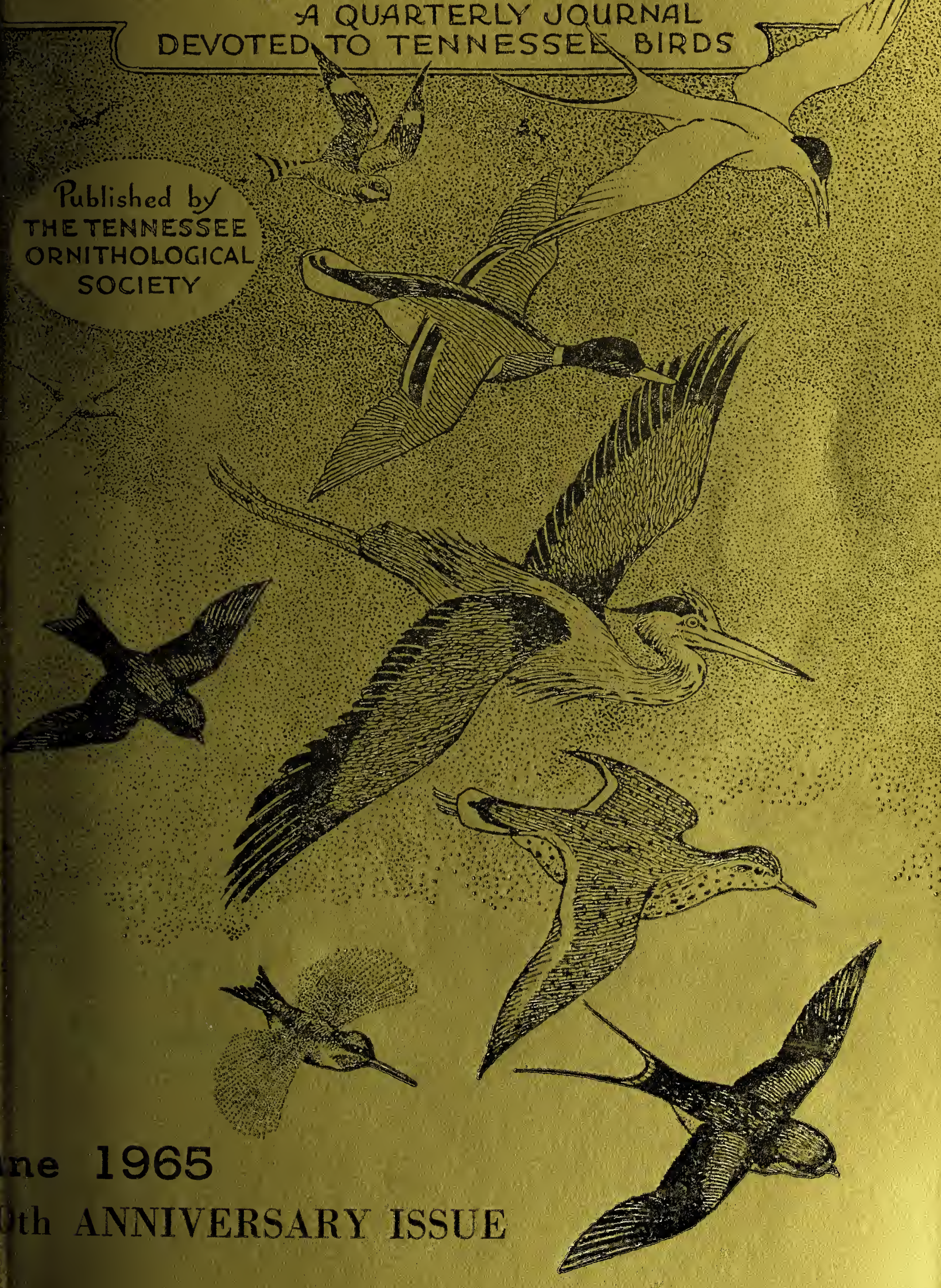

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See suggestions at the bottom of this page.

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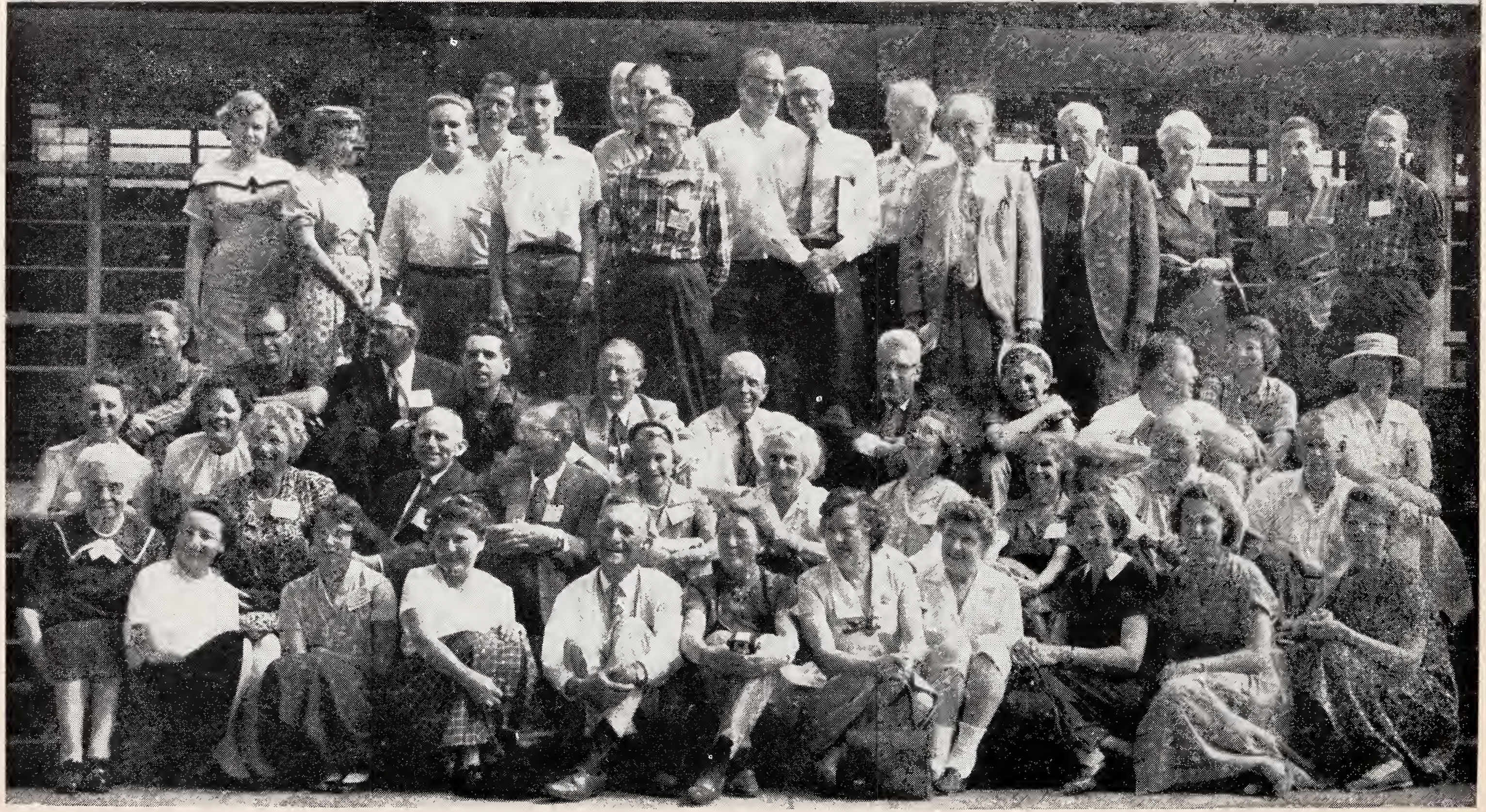
PREPARATION OF COPY FOR PUBLICATION

Most articles published in THE MIGRANT are written by T. O. S. members and comprise their major contribution toward carrying out the Society's purposes. The Editor, like other officers, receives no remuneration for the considerable work he does so the proper preparation of copy will help toward reducing his work. All manuscript should be typed on one side of 8½x11 paper, double spaced, and with good margins. Provide a concise, meaningful title and, where needed, subtitles within the text. Footnotes are not used. Bibliography, when used, should be brief. Examine past issues of THE MIGRANT and follow the style there used, noting that "main articles" and Round Table items are set up differently. Acceptable for inclusion are articles describing the habits of birds as noted from original observations in Tennessee or adjacent areas. Reports on occurrence of unusual species should give full data on the observation so that the record may be evaluated. The value of this publication depends upon the correctness of what it presents so accuracy of statement and identification are obvious requirements. In addition to such articles, are reports on our regularly scheduled projects, such as Spring Migration, Spring Field Counts, Breeding Bird Counts, Hawk Migration, and the Christmas Census. Each of these are reported upon by duly appointed leaders and it is their duty to see that questionable records are eliminated.



T. O. S. ANNUAL MEETING, NASHVILLE, MAY 1-3, 1959. For key to picture, see last pages this issue.

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ORNITHOLOGICAL EXPLORATION AND COLLECTING IN TENNESSEE

By ALBERT F. GANIER

Looking back across fifty years to our beginning and to our plan at that time laid out—to survey, investigate and study the birds of Tennessee—one finds that we have accomplished a great deal of what we started out to do and that we have laid a firm basis on which to continue this interesting project.

Our first task was to canvas the literature, particularly the ornithological journals, to find out and to evaluate the little that had been published about Tennessee birds or about those of adjacent areas. From this source and from our personal knowledge, we compiled a list of about two-hundred and fifty species which we believed we could find within our borders within two or three years. There were five of us in 1915, all active mature men, busy most of the time with our professions but with time on week-ends, holidays and vacation periods, we managed to do quite a bit of field work and report our findings at regular meetings. Our most ambitious project that first year was a four day stay at Reelfoot Lake during the 1915 Thanksgiving vacation. On this foray we listed fifty-nine species of birds and this gave material for my first article on Tennessee birds, published in **The Wilson Bulletin.**

Peterson's and similar bird guides having colored illustrations were not available at that time and it became at once obvious that we must form a collection of study skins of birds in order to become familiar with plumage variations due to sex, age and place of origin. These specimens examined in the hand also acquainted us with all other physical differences. Having already started such a collection, I was elected to be Curator and in that capacity I volunteered to prepare all desirable specimens that should be given to me. On the Reelfoot trip referred to, I prepared 15 skins for the collection.

During 1916, the writer had field-list cards printed so that a permanent record for each day afield might be made and filed, showing all species found, including number, date and locality. More than 40,000 of these were printed and used through the years.

By 1917, we had progressed our field work sufficiently to publish a Preliminary List of the birds of the State, showing their distribution and relative abundance. After compiling this with the help of my colleagues we induced the State to print 5,000 copies and distributed them to colleges, high schools and to interested parties. In 1934, I prepared a revised and enlarged edition, of which 10,000 copies were printed and distributed.

The work proved so absorbing as an avocation that I determined to use my vacation each year to make a stay of a week or ten days in some un-

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explored area, for the purpose of finding what new birds might be there or to record the status of other birds that might vary in numbers because of altitude, latitude or ecological factors.

Reviewing my own work, before I mention that of others, I recall that these vacation explorations included a number of stays in the Reelfoot Lake area, to the river bottoms below Memphis, to Shiloh Military Park on the Tennessee river, to the Big Sandy bottoms in Henry county including Sulphur Well swamp, to Cedar Hill marsh and the Red River area, the Duck river Wildlife Refuge, the Cumberland Plateau at Falls Creek State Park, Beersheba Springs, Pickett Forest Park formerly known as "The Wilderness," and the Jamestown area. In the Appalachians along our eastern border there were stays in The Unicois, the Great Smoky Mountains, Shady Valley, and "sky-high" Roan Mountain near our northeast corner. What a field for exploration it has been. About Nashville of course there were many week-end trips in every direction, including the Highland Rim about Craggie Hope as well as down the Cumberland River bottoms to investigate swamps and marshes.

On most of these trips I had one or more T. O. S. members for company. During the late nineteen-thirties I organized four forays, during four successive Junes and attended by fifteen or more members, to survey interesting areas for an entire week. The results of each of these were written up in issues of **THE MIGRANT** for Dec. 1936, June 1937, Sept. 1938 and Sept. 1940.

Between 1916 and 1930, our little quarterly being not then in existence, I published eighteen articles on Tennessee birds in **The Wilson Bulletin,** official organ of the Wilson Ornithological Society which I served for eight years in the capacity of Secretary and then President. Several other articles were published elsewhere.

Other members of the T. O. S. were more interested in exploring their own more or less limited areas and, beginning on the west, I will mention some of our capable observers who produced fine work and wrote up their findings for our journal. At Memphis, Ben B. Coffey Jr., began his careful work there in 1928 and quickly organized a T. O. S. chapter. Its members enthusiastically assisted him in discovering the resident birdlife of that low-altitude area as well as the horde of transient species migrating along the great Mississippi River flyway. His work has also covered Reelfoot Lake, the riverfront southward, the area of West Tennessee along the Mississippi line and deep into that state. With Mrs. Coffey and other members too numerous to mention, they have explored well and carefully. The area around Paris has been studied by Eugene and Mrs. Cypert as well as the National Wildlife Refuges southeast along the Tennessee river. In the Clarksville area, Alfred Clebsch and Charles Pickering have covered the area about that city as well as the Cumberland and Red River bottoms nearby. About Nashville, our many observers have quite thoroughly worked over all the country within thirty miles and among those of the earlier years should be mentioned your five founders, as well as Harry Vaughn, Jesse Shaver, Vernon Sharp, Amelia Laskey, Harry Monk, and B. H. Abernathy. To list our present fine group of experts would fill another page. In the Lebanon area, Dixon Merritt has reported findings by himself and by our small chapter there. About Columbia, George Mayfield Jr., has helped to revive our Bluegrass Chapter and is reporting for that section.

In the long neglected Chattanooga section, Eugene and Adele West have been actively studying during recent years and with Ralph Bullard and others, publishing on the birds of that area. At Knoxville, Harry P. Ijams was the original enthusiastic leader of the bird-study group in that section and they have prepared many excellent contributions for the pages of **THE MIGRANT.** James T. Tanner, Joseph C. Howell, Muriel Monroe, William Walker, Mary Enloe and Bob Dunbar are among those who developed our findings there. Dr. Tanner has also done considerable work in the high altitudes of the Great Smokies and along with Arthur Stupka, has developed valuable information. Mr. Stupka, on retirement after long years as Park Naturalist, produced in 1963 a most informative book on the birds of the Smokies.

In northeast Tennessee we have had and still have such good observers as Bruce Tyler and Robert Lyle of Johnson City, Tom Finucane of Kingsport who reports the annual hawk migration, Lee R. Herndon of Elizabethton who produces **THE MIGRANT** for our avid consumption, when he is not too busy with bird banding and last, but far from least, hardy Fred Behrend, our one-time efficient secretary and pioneer hawk migration watcher, who has made himself ornithologically famous for braving the wintry gales and deep snows atop Roan and Bald Mountains to take an annual Christmas bird census there. In this virile Tri-cities area, we are now developing an excellent group of young birders from whom I feel sure we will hear more in future.

The brief time allotted me for this paper does not permit me to name our many present-day active, enthusiastic and capable members who, like the earlier pathfinders I have mentioned, have written up their findings and passed them on to our successive editors who have used them to fill 2,770 pages of **THE MIGRANT.** Incidentally, if your interest in birds lies deep within you, you will find that the contents of our little magazine never grow old or out-of-date. Its accounts of bird finds and bird trips afield read as fresh today as when they were written years ago, so, keep your files for reference.

In citing the localities studied by myself and fellow members, please remember that many more interesting localities in Tennessee still remain unvisited. Others already visited deserve revisitation and many facts about Tennessee birds are yet to be discovered. Ornithology follows a fabulous trail that leads on and on without end.

Returning to the subject of forming a study collection of Tennessee birds, the writer has carried this on steadily through these fifty and more years and now has from one to eight specimens of nearly all of the more than three hundred species of birds that have been found within the State. In but few states are there to be found such a comprehensive local collection as this. To these I have added birds which I have collected in the Far-West and Northwest for comparative purposes, making a total of approximately two thousand specimens. In addition to the skins, I have also an equally complete collection of the eggs, in sets, of Tennessee birds, practically all personally collected. The collection, taken under the necessary Federal and State permits, will eventually be donated to some outstanding museum of natural history.

Supplementing the specimens, there is a good working library of bird books, hundreds of pamphlets and complete files of most of the American bird journals. My collection is always available for examination by members of the T. O. S. and I am happy to have it used for identification of birds seen in the field. No book illustration in my opinion can quite so accurately represent a living bird as a well made bird skin.

2112 Woodlawn Dr., Nashville, Tenn. 37212.

EARLY REMINISCENCES

By DIXON MERRITT

All history has its roots in the prehistoric.

The beginnings of the Tennessee Ornithological Society are far back of that historic meeting of five men at Faucon's in October, 1915—as far back, at least, as the first bird work done, and the inspiration for it, by A. C. Webb, H. Y. Hughes, Albert Ganier, and George Mayfield.

Webb's experiences went fartherest back, but all the others went, probably, farther than my own. They ought to be told in this journal. All of us can tell them—all except Hughes who, wing-weary and worn, flew out into the night on his long migration years ago.

So far as I am concerned, and, by the accident of being in position to speak through a newspaper rather than with my own voice, I became the atom about which the nucleus formed, and my interest in birds had come about through an earlier interest in developing the history of Audubon in Kentucky.

For seven years at the beginning of the century, I was city editor of the **DAILY MESSENGER** at Owensburg, Kentucky. It was along that reach of the Ohio River—along it and out from it for great distances—that Audubon did his pioneer work on the Birds of America. At Henderson, a few miles below, he lived and operated a grist mill, a sort of general store, a crude steamboat; there, that he lost his patrimonial fortune and, leaving his family to such mercies as were, went tramping as a sign painter. But the popular accounts of his life laid emphasis on New Orleans, New York, Norristown, Pa., all the places where he did comparatively little, and barely if at all mentioned Henderson.

It was no devotion to birds—which I had known only from Arm & Hammer Brand soda cards in my childhood—but my interest in the vindication of history that started me to work in an effort to supply a deficiency in the biographical data of Audubon.

I encountered in Henderson, Ingram Crockett, a bank cashier, the most sympathetic bird student I have ever known, and an intimate of the Audubon haunts. I commend to you his "A Yearbook of Kentucky Woods and Fields"—though perhaps you cannot find it now. When I had finished extracting the Audubon data from Crockett, I had absorbed from him a love for, and a smattering knowledge of birds that made me the desultory writer of bird bits in the Nashville papers.

Those bits brought to my office, first, Herman Yates Hughes, of the bench of the Court of Appeals, a lonesome bird student. They brought next, Albert F. Ganier, desirous of meeting a kindred spirit, and George R. Mayfield, equally lonesome and equally a student of birds. Ganier it seems had previously hunted up A. C. Webb who had done pioneer bird work of an educational character in the Nashville schools. And so it came about that the T. O. S. was set afoot, as told in our history on another page. You know the rest—except the prehistoric portion that only Webb, Ganier and Mayfield know.

Our delight in the companionship of one another—so long had they been hermit hunters and I a sort of Solitary Sandpiper—was such that, for some time, we did little on week-ends but talk and tramp together. Not until months afterward did we do much about bringing in new members.

There comes to me with particular zest of memory, a frosty morning in front of a log fire at Mr. Webb's house in East Nashville; a night spent in a cabin somewhere in Cheatham County and a dawn-time hunt among the crags along the Cumberland; a twilight under the black brow of the Overton Knobs when Ganier collected the first Winter Wren I ever saw; an afternoon of spring snow and blow when Mayfield and I ran against each other around the bend of a blackberry jungle beyond Centennial Park, hunting for—and finding—the Brown Thrasher on his first arrival.

Webb and Hughes—but **THE MIGRANT** is a very small magazine and there will be no stopping if I get properly going on these memories. The rest of you have done as much as we in making the organization. But you have never known, and never are to know, the joy of companionship in the work we had in those first days.

Nashville, Tennessee, September, 1935.

* * * * * *

The foregoing was written for the twentieth anniversary of the founding of T. O. S. Now thirty more years have slipped out of the future through the fleeting present into the unchanging past. Webb left us in the early years of that period. I am sure that his genius for line and form worked, somehow, into the Great Design. Just now Mayfield went, and I know he caught the music of the Celestial Choir while it was faint and far away, still inaudible to other ears. Ganier and I remain, and while we live, we work.

The acorn we planted is a sturdy oak. The goals we set have been reached—all but one. We were going to inform all the people of Tennessee about birds. We have not. One way to begin to do this, would be to write a review of each issue of **THE MIGRANT** and send it out as a press release to all the newspapers in the state. A few would not use it. Most would—but it would have to be in English prose, not science jargon.

This is the last time I shall tell you anything you ought to do. Half a century of it is enough.

Baird's Mill, Tennessee, June, 1965

Editor's note.—Twenty years after its beginning, four surviving founders, with confidence in the future, combined to write a history of the founding and this was published in the September, 1935 issue of **THE MIGRANT.**

A BRIEF HISTORY OF THE T. O. S. CHAPTERS

By MARY DAVANT

October 7, 1915, found five professional men dining together at Faucon's French Restaurant, in Nashville, Tennessee. Drawn together by a mutual interest in ornithology, their conversation quickly turned to the need they all felt for an organization to encourage bird study in Tennessee. They were Mr. Albert F. Ganier, Judge H. Y. Hughes, Prof. George R. Mayfield, Mr. Dixon Merritt and Prof. A. C. Webb. On adjourning, they agreed to meet again two weeks later. They were joined at a later meeting by Dr. George M. Curtis and in 1916 by Prof. Jesse M. Shaver and Dr. Harry S. Vaughn.

Tennessee was almost a virgin field for the ornithologist at that time but this proved to be more of a challenge than a deterrent. By the end of its second year membership in the T. O. S. had spread to nearby cities, including Dan R. Gray of Mt. Pleasant and Mrs. Wm. P. Morgan of Columbia. The founders actively forwarded the interests of ornithology and of the Society by newspaper articles and by field trips and personal contacts throughout the state.

The first chapter established after Nashville was at Knoxville, late in 1923. The group consisted at that time of Mr. and Mrs. Harry P. Ijams, S. A. Ogden, Brockway Crouch, E. B. Powers, B. C. V. Ressler and others, the last two mentioned being members of the faculty of the University of Tennessee. "Island Home," the residence and bird sanctuary of Mr. and Mrs. Ijams on the Tennessee river, became the rendezvous for all bird students in the area. Audubon Hut was built on his property and was used freely by the members. "H. P." encouraged young men in many facets of ornithology and nature study. One of these was Earl O. Henry who became proficient in his avocation as a bird painter. Throughout his long life, Mr. Ijams' influence was felt by all nature lovers in East Tennessee and he is remembered with affection.

One of the activities of this young Knoxville group was the study of the birds of prey and sometimes cliffs were scaled in the observation of their nests as well as those of Ravens. On one of these expeditions, Brockway Crouch was lowered by rope over a cliff to check a nest on a ledge below. He lost his hold upon the rope and hung head down, suspended only by the noose in which he had placed his foot. Unable to pull himself up and, out of reach of his companion, he instructed that the rope be cut allowing him to fall a short distance to the rocks below. Scratches and bruises were added to his wounded pride but no serious injuries resulted.

This was but one of the many experiences which the early members recount of East Tennessee birding. It was a young group with interesting territory and a wide field to explore. Projects over the years have included conservation, Chimney Swift banding, Christmas bird counts (Beginning as early as 1927), hawk migration, etc. A series of roadside bird counts, as detected by sight or call-notes, comprised a fifteen year study conducted by Dr. Jos. C. Howell and yielded comprehensive information on the presence and abundance of birdlife in the Knoxville area. The Chapter participated in the national study of night migration as shown by birds silhouetted as they passed across the full moon. Reports of these activities have appeared in **THE MIGRANT.**

Located "at the gateway" to the Great Smoky Mountains National Park, the Knoxville chapter has been closely linked with this unique area. Long before it was made a national park, these mountains were a favorite birding and recreation area for Mr. Ijams. He and his bride spent their honeymoon camping and exploring the untamed wilderness. He was active in the movement to have the region declared a national park. In 1924, and again in the 1930's, T. O. S. members held week long field trips to explore the summits.

The National Park Christmas census has been supported by T. O. S. members from all of East Tennessee, but largely by the Knoxville chapter.

It takes a rugged and ardent bird student to make a dawn to dark census at an altitude ranging from 1200-6000 feet in snow and sleet. This was often their dish. The 1942 Park Christmas census reported 20 participants in 7 parties. Among those present were Mr. and Mrs. William Johnson, Robert Johnson, and Mr. and Mrs. W. M. Walker, Jr., Ruth Chiles, Albert Chambers, Henry Meyer, Mrs. Harvey Broome, Mrs. Ben Blackwell, E. W. Dougherty, Freland Goddard and Elise Morrell. In Christmas censuses and at other seasons the Park staff, headed by Mr. Arthur Stupka, has been most helpful.

Ornithology knows no political boundaries. On trips afield, Mr. Ganier, Dr. Mayfield and others became associated with ornithologists from other states. Dr. Gordon Wilson of Bowling Green, Kentucky, was one of these. He affectionately referred to T. O. S. as the God-father of the Kentucky Ornithological Society, giving credit to the group for sponsorship which led to the founding of K. O. S. in 1923.

During 1928, Mr. Ben B. Coffey, Jr. moved to Memphis, from Nashville. At once he began a study of birds in West Tennessee and Northern Mississippi. He and Mr. John Bamberg, formerly from Knoxville, invited all who were interested in birds to meet with them at the Y.M.C.A. on January 20, 1930. Scouts, scout leaders and a few other bird lovers responded. The Memphis Chapter of T. O. S. was born that night. Of those present, John (Jack) Embury, Mr. Coffey and Miss Mary Davant are still active in the club.

The first major outing of the organization was on March 6, 1930. Mr. Ganier came from Nashville to study Bald Eagles nesting at Horseshoe Lark, Arkansas. He was joined by the entire chapter and a nest with two young was examined. It was a cold spring day, and a long one for unseasoned birders. All agreed it was delightful and informative. Regular meetings were held at various places; the Y.M.C.A., The Nineteenth Century Club, and at Miss Hutchison's School for Girls. When the Bird Room at the Memphis Museum was opened, the meeting place was moved there at the invitation of Mrs. Julia Cummings, curator of the museum. In these congenial surroundings the Memphis Chapter has grown in size and knowledge.

The Knoxville Chapter has its mountains; West Tennessee has its swamps. Young and energetic members followed Mr. and Mrs. Coffey into heronries, assisting in the banding of young birds. Records of birds banded during these expeditions have been reported from Canada to Central South America.

Of the many thousands of Chimney Swift bands affixed in Tennessee, 5 from Memphis and 3 from Nashville were among the 13 recovered from birds wintering in Peru, thus establishing for the first time the long sought winter home of this species. (See **MIGRANT**, Sept., 1944). Mrs. Coffey, always an able helper on any chapter project, made a careful study of weights of Swifts and her findings have been published in pamphlet form.

An energetic Bluebird housing project was carried on over a number of years by Mr. R. B. Humphries of Whitehaven. Along with an educational program, he built and gave away Bluebird houses to anyone who could provide a suitable nesting area, and would report nesting results at the end of the season.

All Memphis chapter members have participated in talks to scout groups, garden clubs, and school classes. In 1960, a collection of bird slides was established at the Memphis Museum in Memory of Lawrence C. Kent who worked untiringly for T. O. S. from 1932 until his death in 1957. He held many state and local offices through these years. The slides in this collection are loaned to any organization in the county wishing to have a bird study program. Response to this service is growing steadily. Nesting censuses were held for several years in the early '40's and renewed again in 1964 to be continued on an annual basis. Christmas censuses have been held from the beginning.

Mention of the war years makes me pause to pay tribute to the young men from all chapters who have served our country in the armed services. During World War II local chapters were enriched by ornithologists from other parts of the country who were present temporarily on official duty. Members of T. O. S. found time even in these grim days for bird study in foreign lands. Eight splendid young men gave their lives in the 1940's. Mr. A. F. Ganier as editor of **THE MIGRANT**, September, 1946, wrote, "It is not too much to say that among these young men, there were those who would have gone far in the development of ornithological study and in carrying on the work of this Society." Austin William Burdick, Frederick William Fielder, Jr., Joseph Thornton Mason III, and Ben Welch, Jr., were lost from the Memphis chapter. Conrad Haston Jameson was lost from Nashville, and Lewis Freland Goddard and Dr. Earl O'Dell Henry from Knoxville. The latter contributed much to the early growth of Memphis chapter while a student of the University of Tennessee School of Dentistry.

In June 1930, the T. O. S. launched **THE MIGRANT**, thus establishing a source of communication between birders in the State and, as the Depression waned, new chapters came into being. Among these were Murfreesboro, 1935; Clarksville, 1936; The Bluegrass Chapter, (of Columbia and vicinity), 1937; and Johnson City, 1939; each of which thrived but became inactive during the mid-forties due to the distractions and restrictions imposed by World War II. Among leaders in these new chapters were Prof. George Davis and Henry O. Todd of Murfreesboro; Bruce P. Tyler and Robert B. Lyle of Johnson City; Dan R. Gray, Mrs. Wm. P. Morgan, Dr. O. L. Porter, Mrs. Sam H. Rogers, and Harry Yeatman of Columbia; and Dr. Charles F. Pickering and Alfred Clebsch of Clarksville. Each of these gave active support to the State organization and contributed articles of interest to the pages of our quarterly. Of these members, special mention should be made of Alfred Clebsch, who served long and faithfully as T.O.S. Secretary-Treasurer and who wrote many worthwhile articles for **THE MIGRANT.** Early membership lists will be found in the issues of March and June, 1931, June 1938 and September 1940.

Near the close of the war years, industry brought Dr. Lee Herndon from Buffalo, N. Y. to Elizabethton, Tennessee. He had been a member of the Ornithological Society in Buffalo and lost no time in organizing one in Elizabethton. In February, 1944 the Bird Study Group was formed. Mr. Herndon says, "At the time we were not aware of the existence of T. O. S. We learned about it, and almost before we knew it we became a part of T. O. S. We have been very closely associated with it ever since." Starting with a nucleus of ten members, predominantly beginners, the Elizabethton Chapter has produced some of our strongest field workers. They have engaged in mist netting and banding of birds, high altitude observations, hawk watching, and checking waterfowl on the recently made T.V.A. lakes in the area. On their twentieth anniversary they could point with justifiable pride of having sponsored and assisted in the organization of three new chapters, Bristol, Greeneville, and Kingsport.

Two years after its founding, the Elizabethton Chapter may be given credit for organizing an already interested group of birders at Greeneville, Tennessee. Since 1936 **THE MIGRANT** had been carrying reports of field work signed by Miss Willie Ruth Reed, who later became Mrs. Richard Nevius. In December, 1946, Dr. James Tanner and Dr. Lee Herndon met with Mr. and Mrs. Nevius, Mr. and Mrs. J. B. White, Mr. and Mrs. Irvine and Mr. and Mrs. Willie Clements at the home of Dr. and Mrs. C. M. Shanks to organize the Greeneville Chapter.

Almost at once these energetic people began the compilation of an annotated list of birds of Greene County. Keeping careful notes under the leadership of Mr. White the list was assembled and published in 1956 (**MIGRANT**, 1956, 27:3-8). It was a gratification to the Greeneville group to have completed this project, for Mr. White passed away a few months later. Hawk migration, nesting censuses, and educational programs in the county have been other contributions of this small, but active chapter.

Not resting upon its laurels, Elizabethton made contact with other nearby cities. In 1948 Kingsport Chapter was formed with twenty charter members. Its first president, Thomas W. Finucane, a life-long birder, had been associated with Bruce Tyler, William F. Pearson, Fred Behrend, Lee Herndon and other ornithologists of East Tennessee since moving to Kingsport in 1941. The Kingsport Chapter has been represented in reporting hawk migrations, high altitude birding, and almost every other local or state activity.

Next we find Dr. Herndon representing the Elizabethton group at the organization of the Bristol,Tennessee-Virginia Chapter on January 27, 1950. About thirty members were present and the chapter has been a growing one. Photography of birds is one of the hobbies this group pursues. Mr. H. W. Nunley has made some interesting movies of birds in the area.

The year 1950 also saw the formation of a new chapter in Middle Tennessee. Mr. Dixon Merritt had returned after an absence from the state and settled at Lebanon. He sponsored the Lebanon Chapter, T. O. S. Of the fourteen chapter members five are still active. Mrs. Merritt, its present secretary, reports that its main objective is to interest young people. "While a neighboring chapter complains of a membership of widow, widowers, old maids and hopeless bachelors, we can boast of three marriages of members in the last eighteen months, and the addition of an adorable baby girl upon whom we bestowed "Honorary Membership." A concentrated effort is being made to reach the elementary grades and spark an interest in the very young.

Influence of the Elizabethton Chapter spread when one of its active members moved to Chattanooga. Mrs. E. M. West invited her new neighbors to join her on a field trip. Meeting informally for a time this group organized as the Chattanooga Bird Study Club in August, 1953. There were twenty-one present at this meeting. In January, 1954 they petitioned to become a chapter of T. O. S. Mrs. R. A. Monroe of Knoxville, state president, came to Chattanooga for the formal acceptance at the March, 1954 meeting. The membership of the chapter has doubled during its brief history. There are two paid life members, Mrs. Adele West and Mr. Ken Dubke.

The varied interests of the members has been reflected in the activities of the chapter. Movies have been made and shown by several couples. Mr. and Mrs. West have shown not only before local audiences, but at Wison Ornithological Society convention which drew nation-wide attendance. Newspaper and magazine articles have extended the range of influence. A monthly newsletter "The Chattanooga Chat" was initiated by Mr. and Mrs. R. L. Comstock and has been continued for the past three years. Newspaper, radio and TV publicity has been given the club on several occasions. Scout work, conservation, field trips and co-operation in state wide programs keep the group busy. Dr. Wilbur Butts is in frequent demand for talks. A number of members have taken up banding and mist netting. In 1964, Chattanooga was host chapter at T. O. S. annual meeting.

The Upper Cumberland Chapter was founded October 10, 1957 at Cookeville. Of the ten charter members five are among the present twenty-five members. Meeting at homes with a "dutch" breakfast, or a picnic, fellowhip as well as birding is enjoyed. Their chief objective is to awaken public interest in protection and conservation, thereby making Cookeville a bird sanctuary. A Bird Haven has been established and signs posted at all entrances of the town. Hidden Valley Lake is the location for their Spring Count, and the distinctive Cumberland Plateau is their chief field for study.

In north-central Tennessee a new chapter came into being during October, 1961, when six members of the Nashville chapter journeyed to Springfield at the invitation of the newly formed Highland Rim Bird Club to participate in their meeting. They were duly installed as a T. O. S. chapter. Their elected president was Mr. W. Harry Elam and their corresponding secretary Mrs. Jake O'Brien. Much of their territory is a high, level region south of Kentucky line that was prairie-like in early days.

In recent years, the former Blue Grass chapter is returning to activity under a second generation of young birders and promises to grow steadily into strong proportions.

In north-west Tennessee, Reelfoot Lake has been a Mecca for naturalists and fishermen since the turn of the century. It remained an undeveloped area until very recent years. Only the most hardy ventured into its swamps and wildlife of all kinds flourished. Here the herons and egrets established themselves in a large colony. "Cranetown," as it was called by the natives, was first visited by a party under Mr. Ganier's leadership in May, 1921. He continued to make exploratory trips to the Reelfoot area and has been published in a pamphlet, "Waterbirds of Reelfoot Lake." Dr. C. F. Pickering, Mr. Albert Clebsch, Mr. and Mrs. Eugene Cypert among others have been reporters of activities in the territory of the Lake. **THE MIGRANT** has carried many articles and reports of Christmas censuses there and of visits to Reelfoot by T. O. S. members from all parts of the state. Two annual State meetings have been held at Reelfoot Lake with loyal support from members at large living in the area but local birders had not banded together until recently.

In the spring of 1965 Mr. J. A. Pardue called a meeting representing Dyersburg, Tiptonville, Union City, Obicn and other near by towns to form a Reelfoot Chapter of T. O. S. Its twenty-six charter members include two grandchildren of our founders: Mrs. Frank Markham, a granddaughter of Prof. Webb and Jim Ganier. We wish every success to the new Chapter.

Through the years the Nashville Chapter has been the hub upon which the whole wheel turned. Its representatives have visited other chapters upon special occasions. The influence of Dr. George Mayfield upon his students and through his newspaper column have been great. Mr. Ganier has been an inspiration and kindly advisor in chapter affairs and research. Dr. Harry Vaughn, with others in the Chapter, furnished much of the leadership which established the Nashville Children's Museum. Mrs. Amelia R. Laskey's articles on banding and bird behavior have been widely read. A glance at the authors of articles in **THE MIGRANT** speaks for the activities of the Nashville members.

This chapter has cooperated in many national and State projects, including the Christmas bird count (since 1914), telescopic observations of nocturnal migrants crossing the moon's face, consistent reporting of the casualties to nocturnal migrants caused by ceilometers and television towers, bird banding by trapping and mist-netting, recording arrival and departure dates of spring and fall migrants, and by cooperation with Federal, State and private conservation agencies. For 50 years, the Chapter has met twice a month except during the summer months.

No review of T. O. S. members is complete without a tribute to our associate members. These are residents of other states, former Tennesseans residing elsewhere, and junior members grown to man and womanhood. These have taken their places in various occupations but still contribute to the advance of T. O. S.

In closing I borrow from Dr. Gordon Wilson of Kentucky. Upon the occasion of the Thirtieth Anniversary dinner he summed up the scientific and educational achievements of the Society, and added, "Probably the best achievement has been the bringing together from every profession and organization people who get enjoyment out of bird study. I know of no organization that has so stressed fellowship of students of the out-of-doors."

We, the various chapters, give our thanks to the far sighted five who started the flame, and kept alive the burning interest in the study of birds through fellowship.

861 North McLean Blvd., Memphis 7.

A REVIEW OF TENNESSEE CHRISTMAS COUNTS

By LAURENCE O. TRABUE

In an article in the December 1900 issue of **Bird Lore Magazine** (Vol. II, No. 6, Page 192), the editor, Dr. Frank M. Chapman, recalled the custom of some sportsmen in the latter part of the Nineteenth Century to go out into the country at Christmas to see how many birds of any species they could kill in one day. Dr. Chapman proposed a new kind of Christmas hunt—to count the birds and species rather than kill them. The readers of Bird Lore were urged to spend several hours during the day in the field recording the number of birds of each species they saw. They were asked to send their lists to Dr. Chapman, so that they could be published in the magazine with the idea that not only would they be of interest to the other participants, but would in some measure constitute a census of bird life at that time of year. The first lists were published in the January-February 1901 issue and have continuously been an annual feature of first Bird Lore and then its successors, Audubon Magazine and Audubon Field Notes. That first year 25 lists were made by 27 observers, who spent an average of only 3½ hours in the field.

The first Tennessee count was made Christmas 1902 in Knoxville by Miss Magnolia Woodward. She reported the following list: Flicker (8), Crow (colony), Goldfinch (12), Tufted Titmouse (3), Chickadee (6), and Wren (1). She also sent in censuses for 1905 through 1915, except for 1910. In 1912 and 1914 she was accompanied by O'Conner Woodward. From what little can be learned about Miss Woodward, it is thought that she was a school teacher and was active in the early East Tennessee Audubon Society. O'Conner Woodward was apparently her brother. The minutes of the organizational meeting of the Knoxville Chapter mentioned that they met in the Magnolia Woodward Lodge on the Wildlife Refuge. She was never a member of the Knoxville Chapter of TOS, apparently having died before it was founded. Magnolia Avenue in Knoxville is supposed to have been named for her.

In 1909 Herman Y. Hughes submitted a count from Tazewell, followed by reports in 1912, 1913, 1914 and 1915 from that city. He was Judge of the Court of Civil Appeals, and it was during a meeting of this court in Nashville in 1915 that he became one of the founders of TOS.

Glenn H. Marchbanks made a report for Knoxville in 1914, covering a different area from that reported by Miss Woodward. In 1915 he made a census along the Ocoee River from Copperhill, Tennessee to Blue Ridge, Georgia. I have been unable to find out anything about Mr. Marchbanks, other than his reports in Bird Lore. However, of special interest is the fact that in both his reports he included Brown-headed Nuthatches and in the Knoxville list Tree Swallows. These are the only times these two species have been found on Tennessee Christmas counts.

In 1914 Albert F. Ganier, another future TOS founder, made the first Christmas count in Nashville. Although this count was submitted to Bird Lore, for some reason it was not included in the published reports for that year. However, it was included in the tabulation of Nashville counts in the December 1932 Migrant (3:42), and a full report by Mr. Ganier appears in the December 1963 Migrant (34:90).

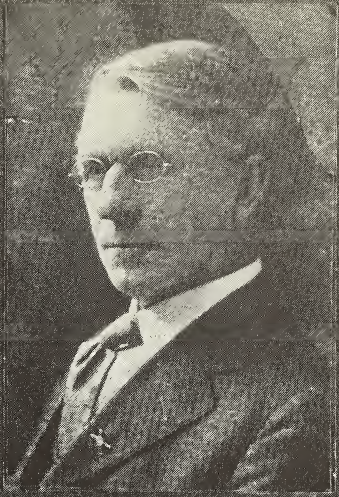
In 1915 Alonzo C. Webb, the first president of TOS, made the census with Mr. Ganier, but for the next three years Mr. Ganier made them alone. In 1919 he was joined by Dr. George R. Mayfield, Harry S. Vaughn, William Vaughn and Mr. Webb. Apparently no count was made in Tennessee in 1920, as no published report can be found for that year. In 1921 Jesse M. Shaver sent in a census for Nashville. During the next few years, in addition to those listed above, such names as Harry Monk, Mrs. George R. Mayfield, Vernon Sharp, E. M. McNish, Mrs. Sanford Duncan, J. K. Baker, Miss Margery Ross, Grover Cook, Ben Coffey and others appeared in the Nashville reports.

From 1916 through 1927 only Nashville submitted censuses. Then in 1928 other counts were made by Ben Coffey in Memphis and by Miss Mary Beard, Miss Catherine Owen, Jim Trent, Jr., S. S. Ogden, E. B. Powers, Earl Henry, John Hay and H. P. Ijams in Knoxville.

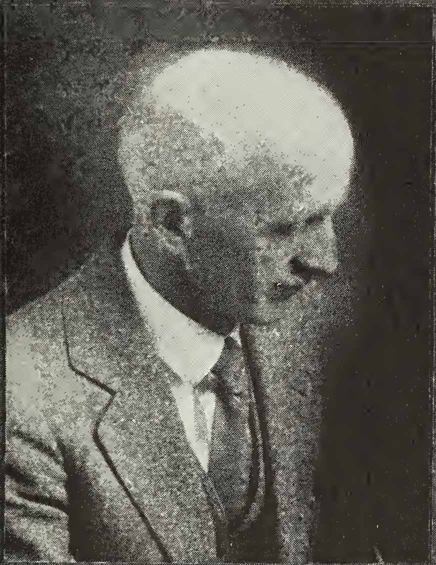
With the beginning of the publication of the Migrant in 1930, and with the promotion it gave to the Christmas counts, together with its publication of the lists made in Tennessee, interest and participation increased rapidly

Founders

Gonier



Webb

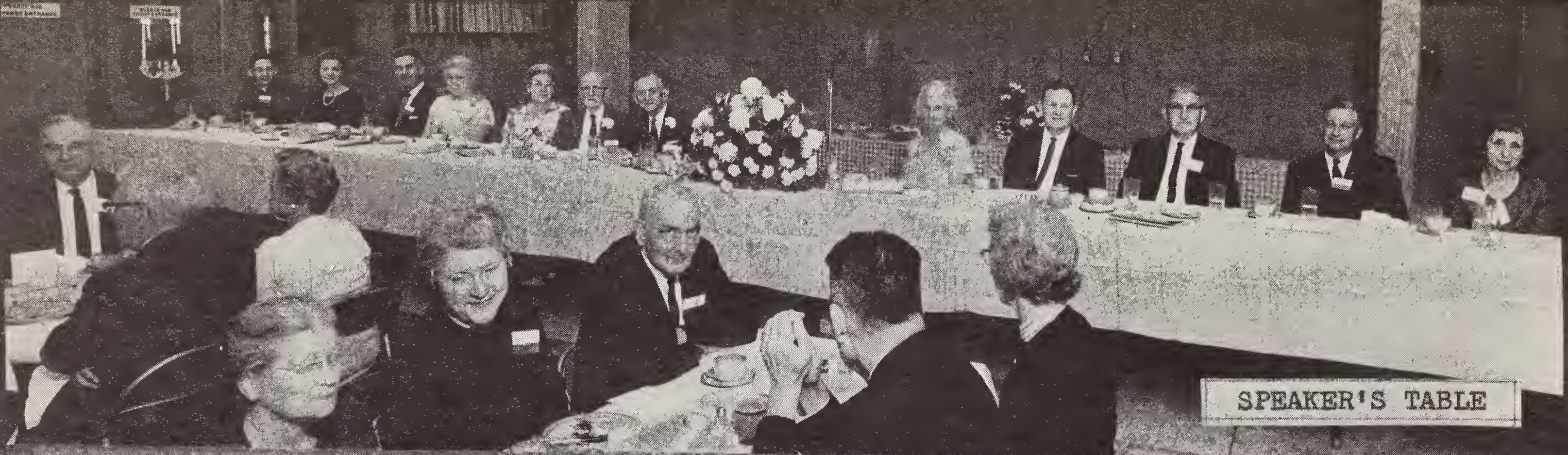


Merritt

Mayfield

Hughes

Four Founders


SPEAKER'S TABLE

ANNUAL BANQUET
NASHVILLE, 1965

ANNUAL MEETING FIELD TRIP, " A few years ago."

Officers elected, 1965, at the Nashville Meeting.- Left to right; Dr. Paul Hollister, Vice-pres., Middle Tenn., Cookville;- Mrs. T. C. Swindell, Secretary, Knoxville;- Albert F. Ganier, Curator, Nashville;- Mrs. H. C. Garlinghouse, President, Knoxville;- James M. Campbell, Vice-president, East Tenn.,Knoxville. Other officers were still afield when the photo was taken.

Group at Friday Night's 50th Anniversary Reception, Belle Meade Mansion.- Albert F. Ganier and Dixon L. Merritt, the two remaining Founders; Mrs. William M. Bell, retiring T. O. S. President, and John S. Herbert, President of the Nashville Chapter, T. O. S.

throughout the state. In the short space between 1930 and 1938 the number of counts increased from three to seventeen. During the sixty-two years of Christmas counting in Tennessee, reports have been made from the following localities in the state:

Kingsport, 1948-’64
Knoxville, 1902, ’05-’09, ’11,-’15, ’28-’31, ’33-’40, ’42, ’58-’64
Lebanon, 1950-’64
Lewisburg, 1938
Memphis, 1928-’64
Mt. Pleasant, 1937, ’40
Murphreesboro, 1933-’42, ’44-46, ’48-’52
Nashville, 1914-’19, ’21-’64
Norris, 1936-’40, ’42
Old Hickory Lake, 1961
Paris, 1932-’36, ’39
Pulaski, 1937, ’38
Reelfoot Lake, 1934, ’40, ’46-’49, ’51-’55, ’58-’64
Roan Mt., 1952, ’53, ’60, ’62-’64
Rugby, 1938
Shiloh Park, 1932, ’33
Shady Valley, 1962
Springfield, 1938-’40
Tazewell, 1909, ’12-’15
White Bluff, 1935-’39, ’41, ’42, ’44
Big Bald Mt., 1953, ’60-’64
Big Bald and Roan Mts., 1950, ’51
Bristol, 1952, ’56-’64
Caryville, 1941, ’44
Chattanooga, 1933, ’36, ’53-’64
Chicksaw Forest, 1941
Clarksville, 1936-’50
Columbia, 1936, ’62-’64
Cookeville, 1958-’64
Copperhill, 1915
Covington, 1934-’40
Crosby, 1959-’63
Duck River Refuge, 1952, ’53
Dyersburg, 1944, ’64
Elizabethton, 1944-’64
Great Smoky Mts., 1935, ’37-’64
Greeneville, 1937-’41, ’43-’64
Henderson, 1938, ’39, ’43-’49
Humboldt, 1938, ’39
Jackson, 1949, ’52, ’53, ’63
Johnson City, 1932-’42, ’47-’51
Johnsonville, 1954-’56

The following is a composite list of the birds contained in the above reports, as published in the Migrant and Bird Lore. A few subspecies are included, where they are of special interest. The names used for some of the species in earlier lists have been changed to coincide with the present AOU list. In parenthesis following each name is the year it was first reported. Common Loon (’27), Red-throated Loon (’58), Holboell’s Grebe (’26), Horned Grebe (’23), Pied-billed Grebe (’14), Double-crested Cormorant (’30), Great Blue Heron (’15), Green Heron (’51), Little Blue Heron (’36), Common Egret (’39), Black-crowned Night Heron (’37), American Bittern (’37), Canada Goose (’14), Hutchins’ Goose (’60), Snow Goose (’31), Blue Goose (’42), Mallard (’16), Black Duck (’23), Gadwall (’32), Pintail (’15), Green-winged Teal (’15), Blue-winged Teal (’14), American Widgeon (’32), Shoveler (’27), Wood Duck (’14), Redhead (’19), Ring-necked Duck (’28), Canvasback (’24), Greater Scaup (’55), Lesser Scaup (’19), Common Goldeneye (’31), Bufflehead (’32), Oldsquaw (’30), Ruddy Duck (’19), Hooded Merganser (’33), Common Merganser (’32), Red-breasted Merganser (’24), Turkey Vulture (’05), Black Vulture (’14), Sharp-shinned Hawk (’14), Cooper’s Hawk (’14), Red-tailed Hawk (’09), Krider’s Red-tailed Hawk (’59), Red-shouldered Hawk (’12), Broad-winged Hawk (’37), Rough-legged Hawk (’34), Golden Eagle (’38), Bald Eagle (’31), Marsh Hawk (’22), Osprey (’48), Peregrine Falcon (’33), Pigeon Hawk (’37), Sparrow Hawk (’09), Ruffed Grouse (’37), Bobwhite (’09), Coturnix Quail (’58), Ring-necked Pheasant (’51), Turkey (’31), Sora (’49), Common Gallinule (’49), American Coot ('27), Killdeer ('13), American Woodcock ('14), Common Snipe ('14), Upland Plover ('57), Spotted Sandpiper ('57), Greater Yellowlegs ('23), Lesser Yellowlegs ('23), Least Sandpiper ('46), Dunlin ('55), Red Phalarope ('44), Herring Gull ('30), Ring-billed Gull ('30), Bonaparte's Gull ('56), Mourning Dove ('09), Barn Owl ('39), Screech Owl ('15), Great Horned Owl ('09), Barred Owl ('14), Long-eared Owl ('34), Short-eared Owl ('22), Belted Kingfisher ('15), Yellow-shafted Flicker ('02), hybrid Flicker ('59), Pileated Woodpecker ('14), Red-bellied Woodpecker ('14), Red-headed Woodpecker ('14), Yellow-bellied Sapsucker ('09), Hairy Woodpecker ('06), Downy Woodpecker ('11), Red-cockaded Woodpecker ('61), Eastern Phoebe ('07), Horned Lark ('14), Northern Horned Lark ('35), Tree Swallow ('14), Blue Jay ('07), Common Raven ('37), Common Crow ('02), Fish Crow ('45), Carolina Chickadee ('02), Tufted Titmouse ('02), White-breasted Nuthatch ('09), Red-breasted Nuthatch ('31), Brown-headed Nuthatch ('14), Brown Creeper ('11), House Wren ('14), Winter Wren ('17), Bewick's Wren ('12), Carolina Wren ('08), Long-billed Marsh Wren ('14), Short-billed Marsh Wren ('40), Rock Wren ('56), Mockingbird ('09), Catbird ('49), Brown Thrasher ('15), Robin ('05), Hermit Thrush ('14), Eastern Bluebird ('05), Golden-crowned Kinglet ('09), Ruby-crowned Kinglet ('14), Water Pipit ('25), Sprague's Pipit ('53), Cedar Waxwing ('12), Loggerhead Shrike ('14), Starling ('23), White-eyed Vireo ('26), Solitary Vireo ('47), Orange-crowned Warbler ('62), Myrtle Warbler ('09), Pine Warbler ('30), Palm Warbler ('24), Yellow Palm Warbler ('38), Louisiana Waterthrush ('54), Yellowthroat ('36), House Sparrow ('14), Eastern Meadowlark ('09), Western Meadowlark ('53), Redwinged Blackbird ('14), Rusty Blackbird ('31), Brewer's Blackbird ('51), Common Grackle ('14), Brown-headed Cowbird ('14), Cardinal ('06), Evening Grosbeak ('51), Purple Finch ('13), Pine Siskin ('37), American Goldfinch ('02), Red Crossbill ('37), White-winged Crossbill ('54), Green-tailed Towhee ('52), Rufus-sided Towhee ('09), Savannah Sparrow ('15), Grasshopper Sparrow ('42), LeConte's Sparrow ('39), Vesper Sparrow ('13), Lark Sparrow ('55), Slate-colored Junco ('07), Oregon Junco ('64), Tree Sparrow ('32), Chipping Sparrow ('15), Field Sparrow ('09), Harris' Sparrow ('52), White-crowned Sparrow ('14), White-throated Sparrow ('13), Fox Sparrow ('09), Lincoln's Sparrow ('35), Swamp Sparrow ('14), Song Sparrow ('07), Lapland Longspur ('39), Smith's Longspur ('53), Snow Bunting ('56).

It is hard to look back in retrospect and question the authenticity of data recorded in the past, especially if those who compiled the information are no longer available. Rare birds do occur and certainly should be reported, but also mistakes are made, sometimes in observing and sometimes in later transcribing. Therefore it is important that sustaining details be given with anything unusual. Certainly some of the species listed above, especially those only occasionally appearing, merit some consideration when details are lacking. The Brown-headed Nuthatches and the Tree Swallows reported by Mr. Marchbanks brings up the question of his qualifications as a competent observer, since we have no information about him. We would certainly like to know more about the only occurrence of Yellowlegs on a Christmas count in Tennessee, especially since both species were reported on the same list. It was noted that the Lesser was "1 - legged specimen, same place since Nov. 15," but nothing is said about the Greater, as to who saw it or where. The 1926 report from Nashville gives good examples of how a report can be sustained and also how doubt can be created. Two Christmas rarities occur on this list, a White-eyed Vireo and a Holboell's Grebe. The Vireo is excellently verified by the following—"White-eyed Vireo is the first winter record for Tennessee; followed by Mayfield, Monk and Coffey for ten minutes; studied with glasses and at distance of 8 feet one time—wing bars, white of eyes, and beak make identity certain" (Bird Lore 39:43). The Holboell's Grebe is a very rare bird in Tennessee at any time of the year, yet there is no comment made regarding it. This brings up the speculation as to the possibility that a Horned Grebe, which is fairly common during the winter, was originally reported, and then somehow later the name got changed by an error in transcribing. Space does not permit a complete review of all of the doubtful reports, but the above examples will serve to illustrate the importance of adequately supporting any new birds added to our list in the future, so that no questions will be raised in the years to come.

Since Miss Woodward made her first count in 1902, phenomenal growth has taken place throughout Tennessee. More people are participating, and the quality and coverage of the censuses are improving yearly. They have reached the status that nothing seems to interfere with them. In 1963 fourteen inches of snow did not stop the Memphis group. For years one of the largest groups has been the one making the count in the Great Smokies, and the trips made to Big Bald and Roan Mountains by Fred Behrend are in a class by themselves. Certainly the future of Christmas Counts in Tennessee is bright, healthy and full of promise and interest.

3819 Harding Place, Nashville.

CONTRIBUTIONS OF THE MIGRANT TO T. O. S.

By LEE R. HERNDON

Prior to 1931 little had been published on the birds of Tennessee. Wilson and Audubon had made brief excursions through Tennessee and some of their observations had been recorded. No systematic or organized publication about Tennessee birds took place until the organization of TOS in 1915. Then the only records published with regularity was that of the Christmas census, first conducted by Mr. A. F. Ganier in 1914 for the Nashville area, and this count has been continued annually to date. After this, fifteen years elapsed before the first issue of **THE MIGRANT** was published in mimeographed form. After one year, printing was begun and has been continued on a quarterly basis, with but one exception, until the present time.

The first printed issue of **THE MIGRANT**, for the calendar year of 1931, consisted of thirty-two pages of printed matter, on the front cover was the sketch of a horned owl while the other three cover pages were devoted to advertisements. Now a single issue frequently contains more pages than the first printed volume for the entire year. Beginning with the March 1935 issue the front cover was changed to a variety of birds in flight which is more in conformity with the title **THE MIGRANT.** Mr. Harry P. Ijams designed the cover which is still in use. Some of the birds which are recognizable in the sketch are: Great Blue Heron, Mallard, a tern, Nighthawk, Spotted Sandpiper, Barn Swallow, Purple Martin and Ruby-throated Hummingbird.

The journal is devoted almost exclusively to Tennessee birds. Lying partially in two flyways, the Mississippi and Appalachian, being geographically divided into three approximately equal divisions and lying in three life zones, the lower and upper Austral and Canadian, and ranging in elevation from approximately 200 feet at Memphis to more than 6600 feet in the Smokies, Tennessee is visited by a greater variety of bird life than any other inland state. More than 320 species have been known to occur in the state. The first distributional list of Tennessee birds, entitled "A Preliminary List of the Birds of Tennessee," published in 1917 listed 270 species and sub-species of birds. In January 1933, Mr. Ganier, who had authored the first list, revised and updated all available information in "A Distributional List of the Birds of Tennessee." The list then was composed of 302 forms, the status of each being presented for each of the three geographical divisions of the state. Within two years the list had been extended by at least a dozen species. The list continues to grow with the most recent addition that of a Northern Shrike, by a specimen, in November of 1964.

Impoundment of the TVA lakes has had a profound influence upon the water bird life of Tennessee. These relatively new lakes not only provide suitable habitat for wintering birds but are convenient resting and feeding areas for a host of migrant waterfowl. Formerly most of these birds passed over our state without stopping or if they did stop it was a mere chance observation that recorded their presence. Systematic and careful study of these reservoirs provide material for publication not only of the rarer species but accumulation of additional information on some of our more common species. Much valuable information should accrue from the areas frequently observed and there are large areas which are seldom visited because our trained observers are too few in number and are concentrated near our metropolitan areas.

With chapters of TOS in all the main geographical divisions of the state there are still wide expanses of territory which are seldom visited. There are areas where there are no organized chapters of TOS and from which only a few individuals report their observations. As an example, the area between Nashville and the Mississippi River has only the Memphis chapter, which is almost two hundred miles away. This area contains some habitat which is unexcelled with regard to bird population density, yet they are visited only for Christmas Counts or occasionally for a state meeting. Specifically, Reelfoot Lake and Duck River Refuge, near Waverly on Kentucky Lake, provide exceptional habitats for species many of us seldom see.

The comparatively recent installations of tall television towers and ceilometers at airports near some of our major cities have been sources of information on migration which otherwise would have been unavailable. Although the carnage is deplorable, much valuable information has been derived from the casualties, such as new species for the state, periods of migration, extremely early or late dates, specimen for study skins and material for research. Much valuable information has already been derived from these sources and much more could become available if the personnel were available.

Only five men have served TOS in the capacity of editor. The first editor was George B. Woodring, (1930-1934) followed by Albert F. Ganier, (1935-1937); Ben B. Coffey, Jr., (1938-March 1942), who was called to the armed services and Mr. Albert F. Ganier assumed the editorship (June 1942-1946). Dr. James T. Tanner served (1947-1955) and Lee R. Herndon

(1956-) to date. Their principal function has been to edit, and see that the material you members submit is printed and distributed to the membership and exchanged with other ornithological publications of a similar nature. You are the individuals who make the observations, work on the projects, do the research and write the articles for publication.

THE MIGRANT serves as a medium through which the important information, in the form of articles, round table notes, seasonal notes and censuses are recorded. **THE MIGRANT** provides a permanent record of all noteworthy ornithological information. By means of a three year index of species, every third year, it is possible to review the occurrence of any species and determine its status in a relatively short time and with little effort. The status of many species change from time to time and one of the objectives of **THE MIGRANT** is to record these changes as they take place. The seasonal report, which we are trying to organize on a quarterly basis should become a vital part of this change in status. Any perceptible change, even though it may be small and temporary should be recorded for it could indicate a trend which might become significant and permanent.

THE MIGRANT needs your contributions. You can make **THE MIGRANT** a better journal. You can share information with others, particularly young people. Share **THE MIGRANT** with others. If you do not preserve them, pass them along to a potential bird enthusiast. Provide the editor or other officials of the organization names and addresses of prospective members. Sample copies with application blanks will be forwarded immediately. Our membership is growing old. Who are you training to take your place when you pass on? If you cannot get out and do field work or if you feel you cannot write an article, you surely can encourage some capable young person to take up bird study and direct them in things which would be enjoyable and at the same time strengthen our organization.

THE MIGRANT not only contributes information to members within the state but it goes to individuals, libraries and museums of thirty-three additional states, the District of Columbia and thirteen foreign countries. Many articles are published in other ornithological journals and books refer to **THE MIGRANT** as a source of information. For this reason information published in **THE MIGRANT** should be accurate and factual. **THE MIGRANT** compares favorably with other state ornithological journals in both quality and content and with your valuable help and cooperation we should keep it that way. It can be made a better journal by diligently seeking better subject matter and doing a better job of presentation.

Route 6, Elizabethton.

OUR BIRD STUDY IN THE FUTURE

By JAMES T. TANNER

When talking or writing about the future, either one can prophesy—that is, forecast, if there are facts to go on, or guess, if not—or one can say what needs to be done.

To prophesy first about the future of birds study, I am sure that people will be studying birds with the same motives as now, because they enjoy doing so. As Dr. Josselyn Van Tyne said, "Bird study is fun."

Since enjoyment from watching, hearing, and learning about living birds, arising from personal experience with part of the natural world, is and will be the main stimulus for bird study, any change in the methods of study or observation will occur only if the new methods can provide more or closer perception of birds. This happened in the field of bird banding when mist nets allowed the bander to handle more individuals, and especially, species that he could not capture by older methods. Perhaps new methods of bird observation will come, but I cannot foresee them. One present method that is likely to become more popular, however, is the use of sound recording equipment. Now good equipment is expensive, but just as good binoculars and telescopes are relatively cheaper and more available now than a few years ago, the cost will probably decline and sound recording be done by many more people.

A last prophecy is a safe but disquieting one: our bird study of the future will be carried on in a world containing many more people than now.

This last forecast leads directly to the first of the things that need to be done.

Several changes in our country—increasing population, increasing urbanization and spread of suburbs, the growth of expressways with the propensity of engineers to route these through parks and "undeveloped" areas—have resulted in the destruction of much habitat for birds right where it is most needed, near where people live. If bird study is to remain a rewarding avocation and recreation for many, there must be areas good for birds and accessible to people.

Bird students must take an active part in the preservation of natural areas. We are not alone in seeing the need for this. All over the nation, as never before, people are working together to save woods, marshes, and natural country. Conservation groups have been organized in communities to protect local areas, in the separate States, and nation-wide to work on larger problems such as the preservation of true wildernesses.

Bird students make good conservationists because, from their own experiences, they know the importance of the habitat. They know, for example, that tanagers live in fairly old woods, chats in thickets, and in general, that to find a certain bird they must go to the right kind of place. They know that legal protection of birds is not enough, that all the protection in the world would not save rails if all the marshes were drained. Conservation is a part of each bird student's philosophy; in the future it must be part of his activities.

Turning now to more specific projects, there are several things that can be done to advance the science of bird study in Tennessee. Amateur bird watchers naturally make the kind of observations that can show changes in bird abundance and distribution, especially if they look for these changes. The southern movement of the House Wren into northeastern Tennessee, observed and recorded by T. O. S. members in that part of the State, is an example. This should still be studied, because now we do not know if this wren is still increasing its range, or is retreating. Another species which is newly established here is the Cattle Egret, breeding in at least one rookery in west Tennessee. This is a conspicuous and easily identified bird, and we have an opportunity to make a detailed record of the spread of a species into new range. Random observations indicate that the Redwing Blackbird and Common Grackle are increasing their numbers and nesting in habitats which they previously left unoccupied. We need more careful observations to find whether or not this is true.

I hesitate to bring up the question of insecticides and their effects on bird populations, because of the difficulty of obtaining real proof of changes in bird numbers unless the changes are very great. All of us are familiar with the day-to-day changes in the number of birds observed just because of variations in the weather. The effects of insecticides on birds and other animals, however, is a major problem facing us. Probably the best way to find out if our bird populations are being affected is by the making of breeding bird censuses. Some of the chapters in T. O. S. are already doing this.

Another opportunity for bird study in our State is in the exploration of areas which are ornithologically unknown. For example, Wayne County on the southern border is a heavily forested area which has been visited rarely if at all by bird students. Two other unknown areas are the northern part of the Cumberland Plateau and the highest of the Cumberland Mountains around Fork Mountain. Examination of **THE MIGRANT** will reveal many other areas in Tennessee which have been neglected.

The future of bird study in Tennessee depends upon bird habitats and bird students. One way to keep up interest and to attract new and serious students is to maintain active study and projects such as some of those described above.

The University of Tennessee, Knoxville.

T. O. S. ANNUAL MEETING 1965

The Annual Meeting of the Tennessee Ornithological Society was held on April 30, May 1 and 2, at Nashville, with the Nashville Chapter as hosts. The occasion marked the 50th anniversary of the founding of the Society. Approximately 175 members attended, coming from all sections of the State, including two of the original founders: Messrs Albert F. Ganier and Dixon Lanier Merritt.

Friday evening, April 30, a reception was tendered the membership by Mr. and Mrs. Ganier at beautiful Belle Meade Mansion. This is one of the historic homes of old Nashville, and was the scene of many brilliant ante-bellum social events. This reception was also a lovely and most enjoyable occasion, all decorations carrying out the golden anniversary motif.

Saturday and Sunday mornings, field trips were made to Two Jays Sanctuary, of which the Nashville Chapter is very proud, and to Radnor Lake and the Warner Parks. Registration was effected at the Children's Museum following the Saturday morning field trip, for those who did not register Friday evening.

The annual meeting of the Board of Directors was called at 1:00 P. M. at the Museum by Mrs. William Bell, President. Reading of the minutes of the 1964 meeting was deferred by unanimous vote. In the absence of the Treasurer, C. E. Wilmeth, Ed King of Memphis gave the Treasurer's report followed by the report of the Auditing Committee, of which Mr. King was chairman. These reports included substantiation of the Society's holding of 260 shares of M.I.T. stock, which represents the Society's endowment, and were accepted as read. As a result of the discussion which followed, a committee was appointed consisting of Dr. James Tanner, Mrs. H. C. Garlinghouse and Dr. Lee Herndon, to consider ways and means of reducing the cost of publishing The Migrant. Mrs. E. M. West, Chairman of arm bands, reported that a supply was available from her at $1.25 each.

She may be addressed at 5511 Dayton Blvd., Chattanooga 17. In the field of conservation, it was reported that the Fish and Game Commission had extended protection to all species of hawks and owls. A report was given for Mr. John Elson, editor of the News Letter, to the effect that he would be willing to continue this work in its present abbreviated form—that is to say an issue in September and one in March. . . . Dr. Herndon made urgent appeal that more Round Table notes, as regular articles be sent for publication in **THE MIGRANT**; and that we try to get back on schedule by having all articles in the hands of the editor by the 15th of the quarterly months—March, June, September and December. If this is done habitually, maybe we will help facilitate the publication of **THE MIGRANT** on time. It was recommended and voted unanimously, that Dr. Herndon, as Editor be allowed a sum not to exceed $100.00 to secure help in typing and mailing. Mrs. Bell reported that Life Membership Certificates were procured by Mr. Ganier and sent to recipients, in accordance with plans made during our 1964 meeting. Mr. Paul Pardue, Chairman of the nominating committee, presented the following slate of officers for consideration of the Society: Mrs. Harold C. Garlinghouse, President; Mrs. Rose Wooldridge, V. Pres. West; Mrs. Henry Waters, V. Pres. Mid.; Mr. James Campbell, V. Pres. East; Dr. Lee R. Herndon, Editor; Mr. Albert F. Ganier, Curator; Mr. C. E. Wilmeth, Treasurer; Mrs. T. C. Swindell, Secretary; Directors—At-Large: Dr. James Tanner, East; Dr. Paul Hollister, Mid.; Mrs. John S. Lamb, West. This slate was approved by the Directors, and duly elected by the membership the following day. There being no further business, the meeting of the Board of Directors was adjourned.

Mrs. E. W. Goodpasture presided over the Paper Session which took place at the Museum at 2:30 P.M. Saturday. Accomplishments of T.O.S. over the 50-year period were cited in the interesting and informative papers given. Mr. Ganier spoke on "Fifty Years of Exploring and Collecting in Tennessee." Ben B. Coffey, Jr., who founded the Memphis Chapter in 1928, spoke on "Bird-banding in the Memphis Area." Dr. Lee R. Herndon, Editor, discussed the "Contributions of **THE MIGRANT** to Tennessee Ornithology." Miss Mary Davant, a research librarian of Memphis, reviewed the "Growth of Chapters and Membership" from 1915 to this date, and Dr. James Tanner, Chairman of the Department of Zoology at the University of Tennessee, concluded with "Our Bird Study in the Future."

The Annual Banquet was held at the Ellington Agricultural Center dining hall on the Franklin Road, Saturday Evening at 7:00. The tables were tastefully decorated and the menu for the occasion was printed in gold, as well as the name tags for members. The catering was by Satsuma, which also prepared the box lunches for Sunday. The President, Mrs. Bell presented the founders, Mr. Ganier and Mr. Merritt, and also Mr. Vernon Sharp, one of the early members, who gave brief reminiscences. Mr. John S. Herbert, President of the Nashville Chapter introduced the speaker of the evening, Dr. Gordon Wilson, Emeritus Professor of Western Kentucky State University, and founder of the Kentucky Ornithological Society. Dr. Wilson reviewed the work of T.O.S. through its long history and spoke with affection of his association with it. Toward the end of the evening, Miss Mary Enloe of Knoxville, extended invitation for T.O.S. to hold its 1966 meeting in East Tennessee.

At the conclusion of the Sunday morning field trips, members gathered in Edwin Warner Park for a brief meeting, compilation of field list and a box lunch. This meeting was opened with a brief moment of silence, and Resolutions presented by Mrs. Ben Coffey, Jr. in tribute to Dr. George Mayfield. Final action was taken on the business transacted by the Board of Directors the previous day. At the conclusion of business, a list of 121 species was compiled for the two days observation.

The Resolutions which follow, were presented by Mrs. E. M. West, Chairman of the Resolutions committee, and were given the Society's approval.

RESOLUTIONS

Whereas, the Tennessee Ornithological Society, assembled at its Fiftieth Annual Meeting, April 30, May 1 and 2, 1965, at Nashville, and

Resolved, That the Society express its affection and admiration, honoring its Founders—Albert Franklin Ganier and Dixon Lanier Merritt—not forgetting its obligations to George Radford Mayfield, Alonzo C. Webb, and Herman Yates Hughes, and

That the members here assembled wish to express their sincere appreciation to the following:

To John S. Herbert, President of the Nashville host chapter, for his expert and professional leadership in the making of all arrangements for this meeting, assisted by Katherine Goodpasture and Laurence O. Trabue in the capacity of co-chairmen;

To Mr. Trabue for preparation of the area map and other activities;

To Katherine Goodpasture for two major activities—planning and execution of the interesting and informative Papers Session of May 1 and arrangement for the publication of the commemorative edition of the 1930 issues of **THE MIGRANT**, for which our thanks are also due George Woodring for the printing of this **MIGRANT** and Kirby Stringer for preparation of its cover.

To Mrs. George Woodring for her excellent handling of publicity;

To the Banner and the Tennessean for cooperation beyond the requirements of normal reporting;

To Mrs. John S. Herbert, Mrs. William Puryear, Mrs. Watkins Crockett, and Mrs. Mark Bradford for providing us with excellent food;

To Miss Jennie Riggs, Mrs. Milbrey Dugger, Mrs. Leona Dunn, and Miss Mary Wood for the many tasks associated with registration, reservations, and preparation of place cards and name tags so beautifully done;

To Henry Parmer, with assistance from Laurence Trabue, John Ellis, and Miss Ruth Castles for the planning and leadership of field trips;

To Mrs. Tom Flowers, secretary to Mr. Herbert, who has given so freely and willingly of her time and skill in the preparation of the program and its accompanying literature;

To all those not named herein who gave of their time and talents toward the successful implementation of this Fiftieth Anniversary meeting;

That the Society express its thanks and pleasure to Mr. and Mrs. Albert F. Ganier, hosts for the delightful reception at the Belle Meade Mansion on Friday night, April 30, and for the simple fact of their presence on this occasion, and

That the Society express to Mrs. Ben Coffey its thanks and approval for her Resolutions concerning our valued friend, George R. Mayfield, and

That the Society express its appreciation to all its officers for two years of diligence and leadership in the performance of their duties, especially commending Mrs. William F. Bell, President; C. E. Wilmeth, Treasurer; Miss Marguerite McKinney, Secretary; Dr. Lee R. Herndon, Editor of **THE MIGRANT**, and Kenneth Dubke, Assistant Editor, and

That our thanks be given John Elson for publication of the Newsletter; Thomas W. Finucane for several years and many hours of study and reporting of the Autumn Hawk Count, and all those who have, over the years, labored for the furtherance of the Society and its objectives, and

That the Society express its thanks to the Children's Museum and the Ellington Agricultural Center for the use of their facilities, and finally,

That Dr. Gordon Wilson, so well known for his many and continuing contributions to the science of ornithology, be accorded our heartfelt thanks for his presence here and the presentation of his inspiring address on Saturday, May 1.

RESOLUTIONS — GEORGE R. MAYFIELD (1877-1964)

Resolved, That the entire membership of the Tennessee Ornithological Society adopts these resolutions in tribute to the memory of our late fellow-member and founder, Dr. George R. Mayfield.

He will always be revered as one of the five men who founded our Society in 1915, and on this occasion, fifty years later, our hearts are saddened that he is no longer with us.

He served our Society in many capacities and through the years he was able to see hundreds of members enrolled from all parts of the state. His dedication to the scientific study of birds never lessened his pure enjoyment of hearing a bird sing. Carefully and patiently he taught us to listen. To listen as Shelley must have listened to the Skylark, as well as to listen scientifically in order to analyze and to distinguish one song from another.

Dr. Mayfield loved nature. He had an alertness, an awareness, and an appreciation so keen that it was natural for him to pass it on to those with whom he came in contact, and who read his published works. We are grateful that some of his observations have been recorded in the pages of our journal, **THE MIGRANT.**

As an educator, conservationist, columnist, and lecturer, his influence was great, and the fruits of his labors remain to enrich our lives.

Although he was honored in many fields, we of the Tennessee Ornithological Society called him our own. As Shakespeare said it many years ago, we say of our beloved George Radford Mayfield, "His life was gentle, and the elements so mix'd in him that nature might stand up and say to all the world 'This was a Man'."

Resolved further, That these resolutions be spread upon the official minutes of this meeting and that a copy be sent to Mrs. Mayfield that we may extend to her and members of the family, an expression of our loss and our condolences.

Accepted and adopted, May 2, 1965.

This concluded a meeting which had given great pleasure and satisfaction to all those who attended.

Respectfully submitted,
Marguerite McKinney, Secretary

ROUND TABLE NOTES

FULVOUS TREE DUCK AT CHATTANOOGA—While making routine observations at the small marsh near the Amnicola Highway (see **THE MIGRANT 34:** 21 for habitat description) on 23 March 1965 a duck that appeared to be a Fulvous Tree Duck *(Dendrocygna bicolor)* was noticed. All observations were made from a parked automobile about thirty yards from the bird. Approximately an hour was spent with the duck under observation and there was little or no sunshine, just a gathering of clouds before a shower, but this did not interfere with the viewing.

While looking at the other waterfowl present, which consisted of Black Ducks (4), Blue-winged Teal (6), American Widgeons (10) and American Coot (3), I noticed an orange colored duck asleep at the edge of the pond with its head tucked under a wing. The duck was disturbed twice by cattle feeding nearby and this is when I had excellent viewing through my 8x40 binoculars. The side of the head, neck and entire breast was a bright orange color. The top of the head appeared darker, with the dark plumage continuing to the nape of the neck and gradually widening into wide brown stripes with narrow black stripes across the back. The long neck and white side stripe were also noticed. The bird flew twice and circled over the pond presenting ample opportunity to observe the white band at the base of the tail, in addition to the feet extended beyond the tail.

Other observers were notified and on a return trip 25 March the duck was not located again.

MRS. MAXINE CROWNOVER, 4306 South Terrace Drive, Chattanooga, Tennessee.

SNOW BUNTING ON HUMP MOUNTAIN—A new locality was added last winter to those in which the Snow Bunting *(Plectrophenax nivalis)* was found in prior years on high balds on the Tennessee-Carolina line.

I had given up hope of finding in Tennessee this rare bird of the Arctic tundra when weekend trips to Round Bald east of Roan Mountain on 1, 8, 15 and 22 Nov., 6, 13, and 27 Dec., 1 Jan. and 14 and 21 Feb. did not result in locating the species in a habitat in which it stayed throughout the winter of 1954-55.

On a Christmas Bird Count 23 Dec. taken by Charles Smith of the Elizabethton T.O.S. chapter and myself on Big Bald Mountain in Unicoi (Tenn.) and Madison (N. C.) counties, there was likewise no evidence of the presence of the Snow Bunting among the great number of moss humps where first located in 1948.

It was the more surprising to come about one bird of the species at the late date of 14 March in Bradley Gap which separates Hump Mountain and Little Hump Mountain at 5,000 ft. on the Carter (Tenn.) and Avery (N. C.) counties line.

Snowfall a couple of days earlier had left a cover of a foot to a foot and a half in the woods, but open Bradley Gap was relatively free of snow, except for considerable drifts on the slopes.

While I was watching a Meadowlark, whose chattering I had heard at 5,000 ft. in the Gap, my attention was attracted to another bird sound, a soft "twitterit — twitterit — twitterit."

The thought struck me that it was the Snow Bunting's call, heard by me a good many times on previous occasions. The bird was apparently in flight, but I did not get to see it. The sound faded with the bird moving through the Gap.

It was lunch time. I sat down in a sheltered place on the slope, protected from the wind. Again, the call note of the Snow Bunting became audible. Still, I was unable to detect the bird in its flight along the slope.

I decided to search for it after finishing lunch. At the point of starting, the call of the Snow Bunting was heard once more. This time I saw the bird, in flight, some 75 yards from me. Flying low it disappeared beyond the Gap.

Following the direction of its disappearance for some 400 feet, I caught up with the Snow Bunting in the vicinity of moss humps and rocks on the ridge, at an elevation of about 5100 ft.

It immediately flew on my approach. In a wide arc it passed along the slope. I watched the Bunting through binoculars and saw it alight on a rock, some 300 feet from me. Proceeding slowly, on hands and knees, not to alarm it as the only moving object in the bare landscape, I was able to approach the bird to within 60 feet, when it flew.

The temperature on the day of observation was mild at 34 degrees.

The find of the Snow Bunting in the Hump Mountain area will give incentive next winter to looking for it on Yellow Mountain on the Tennessee-Carolina line in Carter and Avery counties and also Big Yellow Bald in the latter county. Both mountain tops have been checked for the Snow Bunting some few years on a number of occasions, with negative results.

FRED W. BEHREND, 607 Range Street, Elizabethton, Tenn.

WHIP-POOR-WILL FORAY—On the late afternoon of 13 May five members of the Elizabethton Chapter of TOS had a picnic supper on the southernmost point of South Holston Lake. At approximately 8:00 p. m. the full moon was peeping over the Holston Mountain when the first Whip-poor-will flew over our picnic area. Almost immediately Whip-poor-wills began to sing. We then began our return trip and the count of Whip-poor-wills. The same plan and route was followed as is recorded in **THE MIGRANT 30**:31 and **33**:35. A total of 69 singing birds were recorded over the approximately 16 mile course. Birds were singing most frequently in areas where the moon shone brightest and in areas where logging had been carried on during recent years. No birds were heard in the heavier wooded, darker ravines. This seems to substantiate our findings of 1964 when the same run was made at about the same date but there was no moon and not a single Whip-poor-will was heard or seen.

In addition to the birds seen at the beginning of the course two others were seen after we turned over the crest of the mountain on the south side. One was on the ground near the first mail box we came to as we approached habitation and the other appeared to be feeding as it approached us along the road. These two birds were the last noted by song or observation.

Participants: Mr. and Mrs. J. C. Browning, Mrs. H. Dillenbeck, Lee R. Herndon and Charlie Smith (compiler).

CHARLES R. SMITH, Route 2, Johnson City, Tenn. 37601.

COMMON GALLINULE IN COLUMBIA.—Mr. W. D. Hastings of the Columbia Daily Herald reported that a Common Gallinule *(Gallinula chloropus)* was found nearly dead in the Riverside section of Columbia, up the hill from Duck River. The bird subsequently died and was brought to Mr. Hastings who made the identification. Unfortunately we were not aware of the finding until the bird had been destroyed.

GEORGE R. MAYFIELD, JR., Maury County Hospital, Columbia.

BOOK REVIEW

THE BIRD WATCHER'S AMERICA—Edited by Olin Sewall Pettingill, Jr., and illustrated by John Henry Dick. McGraw-Hill Book Co., 330 West 42nd Street, New York, N. Y. 441 p. $7.50.

Forty-four of North America's leading ornithologists have written short sketches of some of their favorite birding areas. The articles are written by such well known authors as Roger Tory Peterson, Arthur Stupka, Alexander Sprunt, Jr., George Misch Sutton, Maurice Broun, J. J. Murray and Alan D. Cruickshank. The editor has preceded each article with a brief biographical sketch of the author. The habitats covered range from sea-level to mountaintop, from subtropical to the arctic, from desert to rain forest at all seasons and many intermediate places. A few of the places concerned are: The Great Smoky Mountains, The Everglades of Florida, The Rio Grande Valley, The Great Dismal Swamp, Bonaventure Island, off the coast of Quebec, The Olympic Peninsula in Washington, Arctic Alaska and many others.

Many of the places so vividly described are unique because of their remoteness, ruggedness or other physical features. Deterrents to human approach may be water, snow, ice, swamps, mountains, desert or even insects or lack of roads. Such places sometimes attract large concentrations of birds for breeding purposes because of the protection afforded or they might congregate because of an abundant food supply or because of physical features which channel birds through certain areas during migration.

Even the bird-feeder watchers and those only slightly interested in field work will enjoy reading this book and to the ardent bird watcher, it will stimulate the desire to go farther afield to observe some of these scenes for himself.

LEE R. HERNDON, Route 6, Elizabethton.

ABOUT THE SEASON—Due to the length of this issue and our desire to devote the greater portion of its content to the membership and history of the T.O.S., during the past fifty years, "The Season" will not appear in this issue.

Observations for the period 1 March to 1 June will be combined with the period 1 June to 1 September and appear in the September issue.

WALLACE COFFEY, 508 Spruce Street, Bristol, Tennessee.

THE MIGRANT

A Quarterly Journal Devoted to the Study of Tennessee Birds Published by
The Tennessee Ornithological Society

LEE R. HERNDON, Editor, Route 6, Elizabethton, Tenn.

Please notify the Treasurer or Secretary of a change in address

For further information about the Society, Dues, Officers, etc.,
see inside of front cover page.

TO OUR READERS, GREETINGS

Through the years, the pages of THE MIGRANT have been reserved for the birds, but once in a blue moon — such as this our fiftieth anniversary — we feel it pardonable to devote most of our space to "the birders"; those who through the years have gathered the material with which to fill the pages of our little journal. As we have said once before, "all work and no play, makes Jack a dull boy" so along with our more serious study of bird life, we have cultivated and enjoyed the associations of those who share our kindred interests. The contents of this issue will reflect this phase of our activities.

KEY TO GROUP PHOTOGRAPH used as frontispiece. (Part of the group attending 1959 Annual Meeting at Nashville, our best recent picture.)

FRONT ROW, left to right. Mrs. O. C. Ault, Nashville; Mrs. Arlo I. Smith, Memphis; Lynn Smith, Memphis; Mrs. Eugene M. West, Chattanooga; Albert F. Ganier, Nashville; Mrs. Ben B. Coffey, Memphis; Jennie Riggs, Nashville; Katherine Gillespie; Mrs. Robert Dunbar, Oak Ridge; Mrs. C. E. Ruhr, Nashville; Mrs. D. L. Tunsberg, Chattanooga. ROW TWO — Mrs. E. E. Overton, Knoxville; Mrs. Harold Garlinghouse, Knoxville; Mrs. Robert A. Monroe, Knoxville; E. D. Schreiber, Nashville; John Bigham, Memphis; Mrs. Wm. A. Puryear, Nashville; Mrs. Wm. F. Bell, Nashville; Ruth Castles, Nashville; Mrs. B. H. Abernathy, Nashville; Robert Dunbar, Oak Ridge; Eugene M. West, Chattanooga. ROW THREE — Mary Enloe, Knoxville; Harold Garlinghouse, Knoxville; Mrs. E. D. Schreiber, Nashville; Roy T. Hinds, Rickman; David Highbaugh, Knoxville; Dr. O. C. Ault, Nashville; B. H. Abernathy, Nashville; Wm. A. Puryear, Nashville; James Finucane, Kingsport; Paul Pardue, Knoxville; Alice Smith, Memphis; Mary W. Frazer, Nashville. ROW FOUR — Barbara Schreiber, Nashville; Ralph Bullard, Chattanooga; Robert Hamilton, Knoxville; Earl Bishop, Nashville; Torb Mengle, Knoxville; L. D. Thompson, Paris; G. R. Wood, Knoxville; Ben B. Coffey, Jr., Memphis; Thomas Finucane, Kingsport; Robert A. Monroe, Knoxville; B. B. Coffey, Sr., Nashville; Mr. Jim Robbins, Nashville; Mrs. W. L. Fenn, Chattanooga; John Ogden, Nashville; Ken Dubke, Chattanooga.

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LEE R. HERNDON, Editor,
Route 6, Elizabethton, Tenn.
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See suggestions at the bottom of this page.

THE TENNESSEE ORNITHOLOGICAL SOCIETY

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To encourage and record the study of Tennessee birds.
A non-profit educational, scientific and conservation organization.

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PREPARATION OF COPY FOR PUBLICATION

Most articles published in THE MIGRANT are written by T. O. S. members and comprise their major contribution toward carrying out the Society's purposes. The Editor, like other officers, receives no remuneration for the considerable work he does so the proper preparation of copy will help toward reducing his work. All manuscript should be typed on one side of 8½x11 paper, double spaced, and with good margins. Provide a concise, meaningful title and, where needed, subtitles within the text. Footnotes are not used. Bibliography, when used, should be brief. Examine past issues of THE MIGRANT and follow the style there used, noting that "main articles" and Round Table items are set up differently. Acceptable for inclusion are articles describing the habits of birds as noted from original observations in Tennessee or adjacent areas. Reports on occurrence of unusual species should give full data on the observation so that the record may be evaluated. The value of this publication depends upon the correctness of what it presents so accuracy of statement and identification are obvious requirements. In addition to such articles, are reports on our regularly scheduled projects, such as Spring Migration, Spring Field Counts, Breeding Bird Counts, Hawk Migration, and the Christmas Census. Each of these are reported upon by duly appointed leaders and it is their duty to see that questionable records are eliminated.

THE MIGRANT

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Issued in March, June, September and December.

VOL. 36 SEPTEMBER 1965 NO. 3

FALL MIST-NETTING IN THE SMOKIES

By TOM SAVAGE

While pursuing a study of the populations of juncos in the Smokies, I mist-netted during September, October, and November, 1964, in the vicinity of the Sugarlands Visitor Center near Gatlinburg. The primary purpose of the netting was to sample the juncos during the fall migration. In addition, I succeeded in netting and banding 807 individuals of 55 species.

One of the characteristics of a fall migration is the relative absence of songs and calls; thus, wave upon wave of migrants pass through the woods unnoticed. Only systematic observations reveal the nature of these migrant waves. With this in mind, the following results of my mist-netting may prove of value to future investigation of migration in the Smokies.

To begin with, the high numbers of White-throated Sparrows and juncos shown on the accompanying chart indicate the nets were heavily sampling the ground-feeding migrants. However, some of the nets were suitably placed to sample birds of other habits (i.e. goldfinches, woodpeckers, warblers).

A species is located on the chart according to when it first appeared and the length of its horizontal line is determined by the last day the species was netted. Thus, two patterns are developed: 1. the daily grouping (vertical) of initial appearances; 2. the relative duration (horizontal) of the species' presence. Now, these patterns are at best suggestive.

Only repeated sampling each year can give a true picture of the migration. In addition, a study of the weather patterns would aid in the delineation of the migration waves.

The pattern of migration of a single species appears in waves also. (Where possible, the estimated peak is indicated by an asterisk for the individual species in the chart.) This pattern is of course determined, in part, by weather conditions and netting effectiveness. In addition, there should appear, with further study, a basic pattern which is characteristic for the species in this locality. The peak usually occurs early in the migration. Two exceptions are the goldfinch and junco in which multiple peaks occurred.

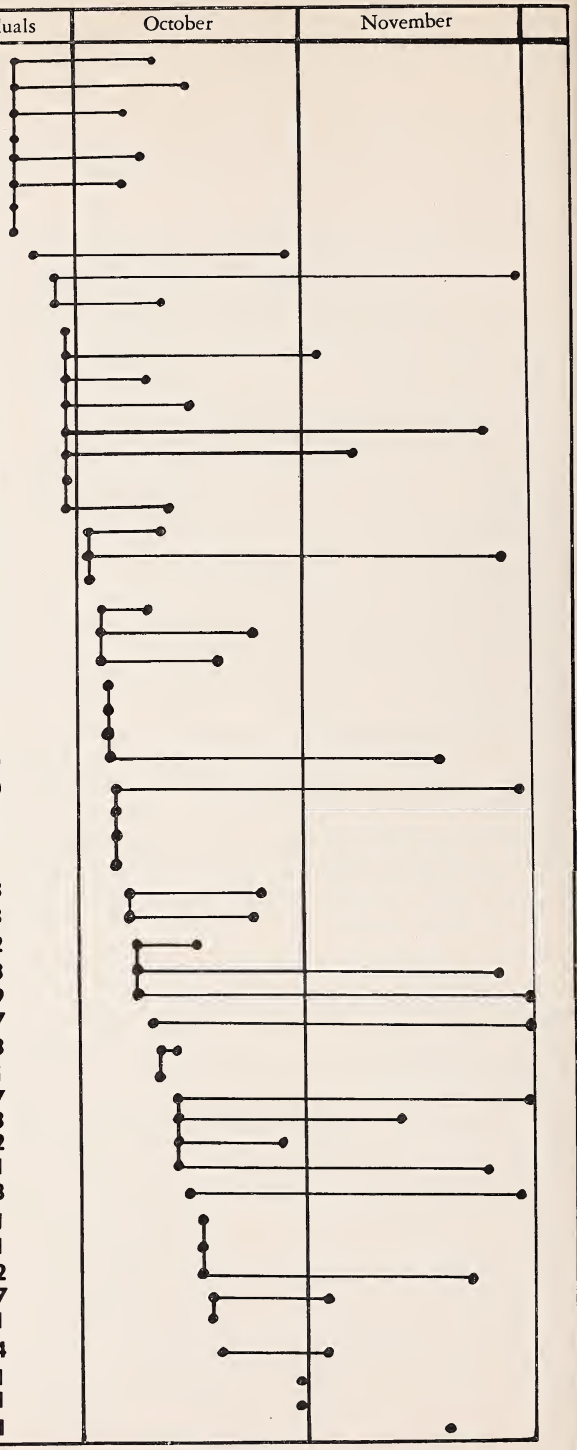
Several species showed no definite peaks although there were considerable numbers involved (eg. White-throated Sparrow, Fox Sparrow, Hermit Thrush, Song Sparrow, and Cardinal).

The final aspect of the chart is that of the terminal date for each species. These terminal dates occur randomly, not in waves (eg., bracketed species, and others).

Lastly, two records of note are: 1. first occurrence of Yellow-bellied Flycatcher **within** the Park's boundaries (26 Sept.); 2. late date of departure for the Catbird (23 Nov.).

Research Collaborator, Great Smoky Mountains National Park, Gatlinburg, Tenn.

Species	Individuals
Ovenbird	**9**
Carolina Wren	**3**
Canada Warblers	**2**
Kentucky Warbler	**1**
Yellowthroat	**8**
Northern Waterthrush	**9**
Black-and-white Warbler	**1**
Hooded Warbler	**2**
Tufted Titmouse	**4**
Cardinal	**20**
Eastern Wood Pewees	**9**
Yellow-bellied Flycatchers	**1**
Brown Thrasher	**13**
Gray-cheeked Thrushes	**7**
Swainson's Thrushes	**7**
Catbird	**67**
Eastern Phoebe	**8**
Empidonax (sp.)	**2**
Wood Thrush	**6**
Rose-breasted Grosbeaks	**9**
Song Sparrow	**21**
White-eyed Vireo	**1**
Yellow-breasted Chat	**2**
Indigo Bunting	**21**
Palm Warbler	**6**
Mockingbird	**1**
Yellow-billed Cuckoo	**1**
Bewick's Wren	**1**
Carolina Chickadee	**6**
Hermit Thrush	**10**
Bay-breasted Warbler	**1**
Prairie Warbler	**1**
Yellow-shafted Flicker	**1**
Yellow-bellied Sapsucker	**3**
Myrtle Warbler	**13**
Magnolia Warbler	**2**
Rufous-sided Towhee,	**28**
White-throated Sparrow	**139**
Slate-colored Junco	**227**
Tennessee Warbler	**3**
Red-eyed Vireo	**1**
Fox Sparrow	**17**
Ruby-crowned Kinglet	**3**
Brown Creeper	**2**
Field Sparrow	**31**
Am. Goldfinch	**58**
Chestnut-sided Warbler	**1**
Hairy Woodpecker	**1**
Chipping Sparrow	**2**
Swamp Sparrow	**7**
Solitary Vireo	**1**
Downy Woodpecker	**4**
Am. Woodcock	**1**
Eastern Meadowlark	**1**
Golden-crowned Kinglet	**1**
Total	**807**



55 species

ROUND TABLE NOTES

SWALLOW-TAILED KITE IN FRANKLIN COUNTY, TENNESSEE.—On 12 August, 1965, two boys found a wounded bird in a field near a power line in the Liberty Community about 5 miles south of Winchester, Tennessee. Being unfamiliar with the identity of this bird, they took it to the Franklin County game warden, Mr. L. H. Sprague, who notified Mr. Charles Cheston, Chairman of the Department of Forestry, University of the South, Sewanee. The latter took Mr. Scott Bates and the writer to identify the bird which proved to be a Swallow-tailed Kite, *(Elanoides forticatus)* with a badly broken left wing. It was then taken to my home for care and treatment. It readily ate raw hamburger meat, drank water, and allowed itself to be handled without difficulty. Its cry was a whistle resembling that of the Broad-winged Hawk. Its wing was cleaned free of maggots and expertly splinted by my wife, but infection had gone too long and it died about 1½ days after capture. Mr. Albert Ganier was notified, and he carried the frozen bird to Nashville to be prepared as a study skin for the T. O. S. collection.

The specimen proved to be an immature female, was in lean condition, and bore no evidence of internal disease. No shot or shot marks were found about the body. The measurements in inches were as follows: spread, 45.50; length, 19.75; wing, 16.50; tail, 11.12; tarsus, 1.44.

Records of this species in Tennessee are rare. Alexander Wilson reported it in early May at "Duck Creek in Tennessee". Wilson crossed Duck River at Williamsport, Maury County on 5 May, 1810. This is 25 miles from Linton where 2 were seen and one shot on 15, August, 1929 (See MIGRANT **4**, 51, 1933).

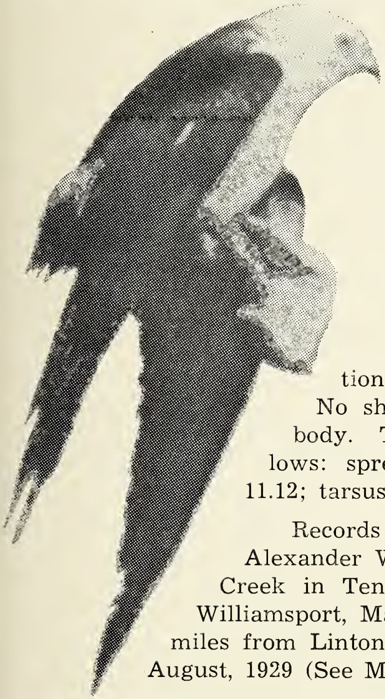


Photo by Mrs. Harry C. Yeatman

O. M. Pindar (Auk, Oct. 1889) reported 8 or 10 near Woodland Mills, Tennessee (2 miles south of Kentucky line) on 9 August, 1886.

Albert Nace, Reelfoot Lake guide, now deceased, reported to Mr. Albert Ganier that he had seen Swallow-tailed Kites near Tiptonville, Tennessee, sailing over cotton fields.

On 15 August, 1929, near Linton, one of a pair which was circling over treetops above South Harpeth River, was shot by the son of J. W. N. Lee, while with his father. The mounted specimen is now in the State Museum. This was the first modern record for Tennessee.

On 25 September, 1933, a man brought a specimen taken near Nashville to the State Museum for identification. Miss Walker, Custodian, compared it with the 1929 specimen and reported it identical. The man then took the bird away to be mounted, but, if so, its present location is unknown to authorities.

The Swallow-tailed Kite still breeds locally in Florida, Texas, and

Louisiana. The writer has often observed its graceful flight near Lake Okeechobee, Florida. In spite of rarity of the species in Tennessee, it should be looked for in late summer and early fall in Middle and West Tennessee.

The writer wishes to thank the various people mentioned above for securing this record and specimen for the T. O. S. and Mr. Albert Ganier for furnishing data on previous records and preparing the skin.

HARRY C. YEATMAN, University of the South, Sewanee, Tenn.

RED-COCKADED WOODPECKER NESTING IN THE GREAT SMOKY MOUNTAINS NATIONAL PARK.—Red-cockaded Woodpeckers *(Dendrocopos borealis)* have been seen in the Great Smoky Mountains in only one area, in the low pine-covered ridges between Cade's Cove and the western boundary of the National Park. Arthur Stupka in his "Notes on the Birds of the Great Smoky Mountains National Park" (p. 88-89, Univ. Tennessee Press, 1963) noted only five records of these woodpeckers; they were all from the above mentioned area, and were made between 1935 and 1953. None of these records were of nesting birds.

In the fall of 1964 I began occasionally to explore this relatively little known section of the Park, but it was not until 22 March, 1965, that I first found a Red-cockaded Woodpecker, a single bird on Beard Cane Mountain near the northwestern corner of the Park. In this same area were three typical nesting or roosting holes, all high in large Yellow Pines. On the following 8 May I returned to this area and found a pair nesting in one of these holes. Their behavior indicated that they were incubating, as they changed places in the cavity three times within an hour. With Arthur Stupka and Don DeFoe, I returned on 16 May, and we found the pair of woodpeckers feeding young in the nest. From the behavior of the birds, I judged the young to be quite small.

The nest tree was a living Yellow Pine about 24 inches in diameter, and the nest was about 30 feet from the ground. Above and below the nest hole quantities of pine gum covered the surface of the trunk, a characteristic of nests of this species. The tree was almost on the crest of the ridge. Many large pines were scattered along the top of the ridge with only a few bushes and saplings between them so that this small strip of forest very much resembled the pine forests of the coastal plains, the typical habitat of this woodpecker.

JAMES T. TANNER, University of Tennessee, Knoxville, Tenn.

SCISSOR-TAILED FLYCATCHER AT PHILLIPY.—On 7 Aug. 65 Mrs. Coffey and I took our visitors, Dr. Pauline James and Leticia Alamia of Pan American College, Edinburg, Texas, and Steve Van Zandt of Des Plaines, Ill., and our nearby Navy base, to the Dyersburg heronry and to Reelfoot Lake. Closing an uneventful circuit, from the river and Cate's Landing back to the lake near Gray's Camp, we crossed highway 78 at Phillipy. A few yards later Mrs. Coffey saw a Scissor-tailed Flycatcher on an electric wire and we were all out quickly to watch it fly up twice and resettle, then it took off towards a house on the highway. This point is about a mile south of the Kentucky line; the only other Tennessee record was on the Mississippi line; both were within two or three miles of the Mississippi River. (THE MIGRANT **35** (2):55. Lakeview levee, 26 April 1964, by Mrs. Edw. L. Carpenter, Claude, Ed, Sr. and Jr.). The Arkansas

Audubon Society reported in 1964 that the species is moving from central Arkansas eastward, although I would still consider it local in that state. We should be on the watch for this beautiful bird, here. I started watching 18 years ago, but expect better luck from now on.

BEN B. COFFEY, JR., 672 No. Belvedere, Memphis 7, Tenn.

SONG SPARROWS AT MANCHESTER.—On 7 Nov. 1953 I spent a day birding at Manchester (THE MIGRANT: **26**, 16, 1955), and have always wanted to return in spring, to hike along the Little Duck River. 26 June 1965 was my first chance and altho any mountain laurel had long since bloomed, we detoured there, enroute from Nashville to Memphis. We, now, can also recommend the dirt road to the Old Stone Fort and the falls of the "big" Duck River nearby. At the Little Duck we were surprised to hear a Song Sparrow singing, from the slope at the waterworks. We were unable to locate or hear the bird again there, nor the species at three other crossings of the river. Working the shady streets of town we heard a second and watched it feed, 3 blocks east of US 41, then a third, 2 blocks west of US 41. Probably there were others but on this hot afternoon we did not hear them.

Manchester is about half way between Chattanooga where I found the species at three areas, limited time, 21 and 22 July 1942 (1942:48) and Nashville. It is 25 miles NW of Tracy City where George R. Mayfield (1953:54) saw a pair 13 July or earlier, 1953. He also heard a singer 14 May 1953 at Cookeville and quoted Prof. Richmond of that city as having a pair nesting nearby, spring of 1952.

Leaving Manchester, we checked only Lynchburg, but without results. On 31 May we had worked Standing Stone S. P. and made stops on back highways north of the Cumberland River, to Carthage, but listed no Song Sparrows. However, this general area, south to the Alabama line, should provide additional records.

BEN B. COFFEY, JR., 672 No. Belvedere, Memphis 7, Tenn.

LATE BOBOLINKS IN CADES COVE.—On 23 May 1965, I heard a Bobolink near the "Wildlife Station" in Cades Cove, Great Smoky Mountains National Park. After a quarter-mile thru high grass, I was able to get up 49 female and 4 male Bobolinks. Based on Arthur Stupka's "Notes on the Birds of Great Smoky Mountains National Park," this would seem to be the largest number of this species and the latest spring date, for the park.

BEN B. COFFEY, JR., 672 No. Belvedere, Memphis 7, Tenn.

BROWN THRASHER FOUND NESTING ON THE GROUND.—On 15 May 1965, Roby B. McQueen, a Shady Valley, Tennessee farmer, took the writer, Tim Hawk and John Shumate to an open field on his property in Shady Valley to see an "unusual nest" of a "Mockingbird". We were amazed to learn that it was actually an open nest of the Brown Thrasher *(Toxostoma rufum)* built on the ground without cover or protection. It was very similar to that of a Horned Lark *(Eremophila alpestris)* but of course larger. The nearest bush or tree was at least fifty to one-hundred feet from the nest. An adult thrasher was on the nest and remained motionless until nearly caught by hand. The contents of the nest were four eggs which appeared typical in size and color to other clutches of this species observed by the writer.

Vegetation in the area was rather short and suggestive of a former pasture grown over. The lay of the land can best be described as a small hill with a gentle slope towards a nearby creek. The elevation above sea level is about 2800 feet.

Arthur Cleveland Bent devotes two pages of his "Life Histories of North American Nuthatches, Wrens, Thrashers, and Their Allies" (Bulletin 195, United States National Museum, 1948) to a discussion of ground nests by this species. He writes, "I have been surprised to read in the literature and in contributed notes that, throughout the western and southern portions of its range, the Brown Thrasher very seldom builds its nest upon the ground, for that is certainly not the case in New England, or at least in eastern Massachusetts." (Bent, page 356).

Referring to Tennessee he continues, "Evidently none of the nests studied by Dr. Erwin (1935) at Nashville, Tenn., was on the ground; his lowest nest was a foot from the ground in a thick growth of smilax;" (Bent, page 356). "H. O. Todd, Jr., tells me that out of 109 nests found in Tennessee, only one was on the ground." (Bent, page 357).

This particular nesting situation opens our ornithological studies, here in Northeast Tennessee, to additional interesting speculation. In light of the findings made in 1937 by the United States National Museum party collecting in this region of the State under the direction of Dr. Alexander Wetmore, we find food for thought. Dr. Wetmore and others determined that various specimens collected in the area and in Shady Valley showed definite evidence towards intergradation between southern and northern forms and in some cases showed the presence of northern races. (Notes on the Birds of Tennessee, Proceedings of the U. S. National Museum, Vol. 86, No. 3050, 1939, by Alexander Wetmore). Examples of species showing the presence of northern forms were: Yellow-shafted Flicker *(Colaptes auratus luteus)* Bangs, Barred Owl *(Strix varia varia)* Barton, Hairy Woodpecker *(Dendrocopos villosus villosus)* (Linnaeus), and the Downy Woodpecker *(Dendrocopos pubescens medianus)*.

Due to the elevation of Shady Valley and its climate, it certainly appears to offer the necessary factors or characteristics present in areas much further north of Tennessee. Kenneth H. Dubke discovered the Bobolink *(Dolichonyx oryzivorus)* nesting here on 10 June 1962 (THE MIGRANT **34:**17). This is certainly a species that nests north of the State.

Therefore, it seems reasonable to suspect that the ground nesting individual found present in Shady Valley in 1965 might well have been a more northern Brown Thrasher belated by suitable conditions and thus nested south of its normal breeding grounds. At present it would not be possible to determine such status by securing a specimen, for the race *T. r. rufum* is a widely distributed race encompassing the major portion of Eastern North America and Tennessee (A.O.U. Check-List of North American Birds, Fifth Edition, pages 424-425). However, we might continue our search for similar nests in areas that seem suitable and particularly in Shady Valley.

JOHN WALLACE COFFEY, 508 Spruce Street, Bristol, Tennessee 37622

NATURAL BRIDGE, TENNESSEE, REVISITED.—On 4-6 July 1947, five of us, plus the Ganiers, visited Natural Bridge for the first time (THE MIGRANT: **19**, 4-7, 1948). This summer, Mrs. Coffey and I reached there 26 June in time to make an after-dusk run for night birds, north, past

Squeeze-Up Bluff. The morning of 27 June was spent back along this road; going farther, we inadvertently got into NW Lawrence County, returning via Riverside. On our evening run we heard 10 Whip-poor-wills (7:40 to 8:00 p.m.) and 13 Chuck-will's-widows (7:40 to 7:49); 5½ miles. Apparently the Chucks stopped calling before the Whips. On return stops we only heard 2 Whips, about 8:09. At the resort itself during our absence, a Whip had called; we heard it and a second, 3:45 to 4:00 a.m. A comparison with 1944 is not possible.

The Prairie Warbler continued scarce, unaccountably, — only a Lawrence County bird was heard, but the Towhee was now common. The Cerulean, Sycamore (Yellow-throated), and Redstart seemed scarce but the Kentucky Warbler common. On the look-out for Ovenbirds, we only heard them in Lawrence County, — three singles in the Brushy Creek area. The Wood Thrush was not in evidence. Two Scarlet Tanagers were in Lawrence County. Of interest was a Blue Grosbeak, singing, on the county road, just north of the turn-off to the Bridge. It is not always informative to compare a day's list with another day's list, but a 27 June should not differ too much from a 5 July. Under the stress of family cares, a species may, at a certain period, seem to be absent from an area. However, in lieu of more time for ample visits, we place the above on record.

BEN B. COFFEY, JR., 672 No. Belvedere, Memphis 7, Tenn.

THE SEASON

SPRING

NASHVILLE—**Loons-Ducks:** Common Loon: 11 May (1) BL; grebes, herons, egrets very scarce; Black-crowned Night Heron: 28 May (41) nests found BH (JP, MB) after two years of nonuse; Yellow-crowned Night Heron: 15 May nest, 3 young BV (JP); ducks left early.

Shorebirds: Killdeer: scarce; others late and scarce; Yellowlegs: Greater: 16 May (1); 18 May (1) BL; Lesser: 18 May (1).

Gulls-Flycatchers: Herring Gull: left 30 days early; Ring-billed left 6 weeks early; Forster's Tern: 11 May (54) BL (HEP).

Wrens-Gnatcatcher: House Wren: active nest in different areas; 1 May (1) PW (LOT); 5 June feeding young; 8 June nest, (6) young (ARL); thrushes scarce except Robins; Blue-gray Gnatcatcher: 5 April (4).

Vireos-Warblers: Tennessee Warbler: 12 April (1), earliest ever; Nashville Warbler: 15 April (1); Connecticut Warbler: rare here, 6 May (1) RL (MCW); 21 May (1) (ARL); Redstart: 11 April, earliest ever.

Finches: Indigo Bunting: 9 April (1).

Locations: BH—Bordeaux Heronry, BL—Bush Lake, BS—Basin Springs, BV—Buena Vista Marsh, PW—Percy Warner Park Pond, RL—Radnor Lake.

Observers: MB—Mike Bierly, KAG—Katherine A. Goodpasture, ARL—Amelia R. Laskey, HEP—Henry E. Parmer, JP—Jimmy Parrish, LOT—Laurence O. Trabue, MCW—Mary C. Wood.

HENRY E. PARMER, 3800 Richland Ave., Nashville, Tenn. 37205.

CHATTANOOGA—**Loons-Mergansers:** Common Loon: 2 April (24) (KHD, HEP); 4 April (8); Horned Grebe: 7 March (2) to 4 April (24); maximum 29 March (60); Pied-billed Grebe: 7 March (1) to 25 April (1); maximum 15 April (42); Great Blue Heron: 7 March (1) to 5 April (6); Green

Heron: first 4 April (1); Little Blue Heron: 18 April (1) (KHD); Cattle Egret: 18-19 April (1) (KHD) first local record; Common Egret: 6 April (1) (MC); Black-crowned Night Heron: 21 to 27 April (1); Yellow-crowned Night Heron: first 25 April; Least Bittern: 18 April (1) to 24 May (2); American Bittern: 11 April (1) to 25 April (1); Fulvous Tree Duck: see **Round Table Notes, MIGRANT 36,** 52, 1965; Mallard: last 25 April (1); Black Duck: last 8 April (2); Gadwall: last 4 April (2); maximum 15 March (23); Pintail: 15 March (4); Green-winged Teal: 7 March (5) to 11 April (2); maximum 4 April (16); Blue-winged Teal: 15 March (2) to 20 May (1); maximum 21 March (67); American Widgeon: last 25 April (4); Shoveler: 12 March (1) to 11 April (8); Redhead: 7 March (19); 15 March (111); 21 March (1); 25 April (1); Ring-necked Duck: 7 March (7) to 25 April (2); maximum 15 March (68); 27 April (1); Canvasback: 15 March (1); Greater Scaup: good light, 15 March (25); 21 March (100) (KHD, RTB Jr.); last 25 April (2); Common Goldeneye: 8 March (1); 15 March (6); 4 April (2); Bufflehead: 8 March (3); 4 April (47); 11 April (3); Ruddy Duck: 15 March (10); 4 April (8); Hooded Merganser: 15 March (4); 21 March (1); Common Merganser: 14 March (1); Red-breasted Merganser: 14 March (1) to 15 April (6); maximum 23 March (8).

Hawks-Gulls: Broad-winged Hawk: 11 April (2); Marsh Hawk: last 4 April (1); Osprey: 28 March (2) to 18 April (1); King Rail: first 11 April (1); Sora: 15 April (1) to 19 May (2); American Coot: last 8 May (1); Semipalmated Plover: 8 May (2); 9 May (1); Black-bellied Plover: 24 May (1); 26 May (1) (JD), first local spring record; American Woodcock: 15 April adult, 3 young, over line in N. Georgia (RTB Sr.), first local breeding evidence; Common Snipe: last 19 May (2); maximum 22 March (77); Spotted Sandpiper: 4 April (1) to 23 May (1); maximum 9 May (7); Solitary Sandpiper: 11 April (1) to 19 May (1); maximum 27 April (20); Greater Yellowlegs: 6 March (1) to 22 March (1); Lesser Yellowlegs: 11 March (1) to 9 May (3); maximum 27 April (23); Pectoral Sandpiper: 21 March (22); 22 March (18); 27 April (1); Least Sandpiper: wintering population at Savannah Flats until lake level rose; none after 22 March (4); migrants 23 April (1) to 25 May (3); maximum 9 May (13); Semipalmated Sandpiper: 16 May (2); 18-19 May (9 each); 22 May (1); Western Sandpiper: 22 May (1) (KHD); Herring Gull: 4 April (1); Ring-billed Gull: last 4 April (25); maximum 15 March (385); Bonaparte's Gull: 4 April (40); 11 April (9).

Goatsuckers-Vireos: Whip-poor-will: 7 April (1); Common Nighthawk: 23 April (1); Chimney Swift: 5 April (75); Ruby-throated Hummingbird: 11 April (1); Yellow-bellied Sapsucker: last 25 April (1); Eastern Kingbird: 8 April (1); Great-crested Flycatcher: 11 April (4); Eastern Wood Pewee: 18 April (1); Tree Swallow: 21 March (3) to 18 April (6); Bank Swallow: 24 April (1); Rough-winged Swallow; 21 March (5); Barn Swallow: 21 March (3); Purple Martin: 16 March (3); Short-billed Marsh Wren: 8 May (1) (BCR); 16 May (1) (KHD), first local spring records; Catbird: 15 April (1); Wood Thrush: 5 April (1); Hermit Thrush: last 18 April (1); Swainson's Thrush: 23 April (1); until 9 May (1); maximum 4 May (8); Blue-gray Gnatcatcher: 6 April (3); Ruby-crowned Kinglet: last 25 April (3); Water Pipit: 22 March (25); Cedar Waxwings: til 22 May (15); maximum 3 March (200); White-eyed Vireo: 4 April (1); Yellow-throated Vireo: 6 April (3); Red-eyed Vireo: 7 April (1).

Warblers-Sparrows: Black-and-white Warbler: 28 March (1); Prothonotary Warbler: 11 April (1); Worm-eating Warbler: 18 April (2); Golden-winged Warbler: 18 April (2); Blue-winged Warbler: 11 April (6);

Tennessee Warbler: 11 April (1); 9 May (1); Yellow Warbler: 6 April (2); Cape May Warbler: 28 April (3); Myrtle Warbler: last 9 May (1); Black-throated Green Warbler: 24 April (1); Cerulean Warbler: 11 April (1); Blackburnian Warbler: 11, 15, 28 April (1 each); Yellow-throated Warbler: 27 March (1); Chestnut-sided Warbler: 8 May (1); Bay-breasted Warbler: 5 May (2); 9 May (2); Blackpoll Warbler: 23 April (1) to 9 May (6); Prairie Warbler: 7 April (1); Palm Warbler: 11 April (1) to 28 April (8); Ovenbird: 11 April (4); Louisiana Waterthrush: 18 April (1); Mourning Warbler: 18 April (1) an unusually early female, good light, close range, in Georgia (KHD); Yellowthroat: 4 April (1); Yellow-breasted Chat: 15 April (1); Hooded Warbler: 6 April (1); Canada Warbler: 23 April (1); 9 May (1); Bobolink: 20 May (1); Orchard Oriole: 9 April (1); Baltimore Oriole: 18 April (1); 6 May (2); Rusty Blackbird: 15 March (5); 28 March (4); Scarlet Tanager: 9 April (2); Summer Tanager: 9 April (2); Rose-breasted Grosbeak: 18 April (1) to 9 May (3); Blue Grosbeak: 20 April (1); Indigo Bunting: 17 April (3); Purple Finch: very few, 21 March (1); 28 March (5); Savannah Sparrow: last 25 April (1); Grasshopper Sparrow: 7 April (1); Vesper Sparrow: last 5 April (13); Bachman's Sparrow: 11 April (1); Chipping Sparrow: 3 March (10); White-throated Sparrow: last 19 May (1); Fox Sparrow: last 7 March (2); Swamp Sparrow: last 18 May (2).

Locations: Chickamauga National Military Park, Georgia, Chickamauga Lake, Amnicola Marsh and the Collegedale area.

Observers: RTB Jr.—Ralph T. Bullard, Jr., RTB Sr.—Ralph T. Bullard, Sr., MC—Maxine Crownover, JD—Jon DeVore, KHD—Kenneth H. Dubke, HEP—Henry E. Parmer, BCR—Ben and Carol Ringer.

KENNETH H. DUBKE, 3302 Navajo Drive, Chattanooga, Tenn. 37411.

GREENEVILLE—**Herons:** Green Heron: 17 April; Yellow-crowned Night Heron: 4 April (RN)A.

Geese—Ducks: Canada Goose: 1 April (5); Mallard: 3 March (18); Blue-winged Teal: 5 May (RF); Wood Duck: 27 April (9 eggs)M; 18 May (1 adult, 6 young)LC; 30 May (2 adults, 5 young)RF.

Hawks: Red-tailed Hawk: 13 April (2)BM; Sparrow Hawk: 9 March (nesting)A.

Rails—Sandpipers: Sora Rail: 28 April; American Woodcock: 14 May; Common Snipe: 19 April (25); Spotted Sandpiper: 15 April; Pectoral Sandpiper: 14 April; Greater Yellowlegs: 14 April; 16 April; 19 April; 22 April; Lesser Yellowlegs: 5 April; 7 April.

Goatsuckers—Flycatchers: Chuck-will's-widow: 14 May (6); Whip-poor-will: 14 May (2); Common Nighthawk: 23 April; Chimney Swift: 9 April; Yellow-shafted Flicker: 11 April; Eastern Kingbird: 1 May; Eastern Phoebe: 10 March (2); Olive-sided Flycatcher: 11 April (1) PC.

Swallows—Thrashers: Tree Swallow: 16 April (6); Rough-winged Swallow: 8 April; Barn Swallow: 8 April; Purple Martin: 3 April; Catbird: 9 April; Brown Thrasher: 5 April.

Gnatcatcher—Warblers: Blue-gray Gnatcatcher: 9 April; Black-and-white Warbler: 11 April; Prothonotary Warbler: 23 May (feeding 5 young) W; Yellow Warbler: 9 April; Black-throated Green Warbler: 11 April; Pine Warbler: 11 April; Ovenbird: 11 April; Yellowthroat: 14 April; Hooded Warbler: 11 April; American Redstart: 18 April.

Blackbirds—Finches: Red-winged Blackbird: 14 April; Rusty Blackbirds: 14 April; Blue Grosbeak: 5 May; Indigo Bunting: 3 March; Savannah

Sparrow: 18 April; Chipping Sparrow: 11 April.

Locations: A-Albany, BM-Bluff Mountain, LC-Lick Creek, M-Marvin, PC-Paint Creek, RF-Roaring Fork, W-Warrensburn.

Observers: Ruth and Richard Nevius.

RICHARD NEVIUS—Route 3, Greeneville 37743.

ELIZABETHTON — **Loons-Mergansers:** Common Loon: 12 May (1). Horned Grebe: 4 April (3) on BL. Pied-billed Grebe: last on 2 May (1) on BWL. Green Heron: first on 25 April (1). Canada Goose: 13 March (2). Black Duck: last on 13 March (90). American Widgeon: 13 March (7). Green-winged Teal: 27 March (1); 11 April (4); 25 April (6). Blue-winged Teal: 11 April (1); 16 April (2). Shoveler: 28 March (2); 4 April (12). Redhead: 13 March (5). Ring-necked Duck: 13 March (33). Lesser Scaup: last on 23 May (1). Common Goldeneye: last on 12 May (1). Bufflehead: last on 23 May (1). Oldsquaw: 31 March (1); 4 April (3). Hooded Merganser: 13 March (13); 11 April (1). Common Merganser: 13 March (6).

Hawks-Owls: Sharp-shinned Hawk: 20 March (1). Cooper's Hawk: 6 March (1); 12 April (1). Red-tailed Hawk: 9 May (1) on HM (FWB). Osprey: 11 April (2) over BL (LRH, CRS); 25 April (2); 8 May (1). Sparrow Hawk: 20 March (1). Coot: 11 April (9); 9 May (1). Semipalmated Plover: 23 April (3); 25 April (3); 2 May (3). Woodcock: 1 April (1). Common Snipe: last on 25 April (14). Spotted Sandpiper: 25 April (3); 2 May (1); 16 May (3). Solitary Sandpiper: 10 April (1); 17 April (2); 25 April (7); 8 May (1). Greater Yellowlegs: 25 April (2). Lesser Yellowlegs: 25 April (1). Least Sandpiper: 25 April (2). Herring Gull: last on 11 April (3). Ring-billed Gull: last on 11 April (40). Bonaparte's Gull: 1 April (13) (LRH). Yellow-billed Cuckoo: first on 10 April (1). Black-billed Cuckoo: first on 8 April (1). Barred Owl: 23 May (1) on RM (FWB).

Goatsuckers-Creeper: Chuck-will's-widow: first on 9 April (1) near MC (CRS). Whip-poor-will: first on 11 April (1); 13 May (69). Nighthawk: first on 24 April (1). Chimney Swift: first on 7 April (1). Ruby-throated Hummingbird: first on 16 May (1) (JCB). Red-headed Woodpecker: 25 April (1). Yellow-bellied Sapsucker: last on 25 April (2). Hairy Woodpecker: 25 April (3). Kingbird: first on 8 April (1). Crested Flycatcher: first on 25 April (2). Acadian Flycatcher: 8 May (1). Least Flycatcher: 25 April (3); 8 May (3). Wood Pewee: first on 25 April (6). Bank Swallow: 25 April (2); 2 May (2). Rough-winged Swallow: first on 8 April (8). Barn Swallow: first on 8 April (4). Purple Martin: first on 11 April (5). Raven: 3 April (1); 9 May (1); 21 May (2). White-breasted Nuthatch: 7 March (1). Brown Creeper: 14 March (1).

Wrens-Warblers: House Wren: first on 28 March (1). Bewick's Wren: 9 May (1) on HM. Catbird: first on 18 April (1). Brown Thrasher: first on 29 March (1). Wood Thrush: first on 15 April (1). Blue-gray Gnatcatcher: first on 10 April (1). Ruby-crowned Kinglet: last on 23 March (1). Loggerhead Shrike: parent bird feeding fledgling on 29 May (RDM). White-eyed Vireo: first on 11 April (1). Yellow-throated Vireo: 25 April (7); 8 May (1). Solitary Vireo: first on 10 April (1). Red-eyed Vireo: first on 25 April (36). Philadelphia Vireo: 25 April (3). Warbling Vireo: first on 25 April (1). Black-and-white Warbler: first on 25 April (19). Swainson's Warbler: 9 May (1). Worm-eating Warbler: first on 18 April (1). Nashville Warbler: 18 April (1). Parula Warbler: first on 11 April (1). Yellow Warbler: first on 15 April (1). Cape May Warbler: 25 April (1); 5 May (1). Black-throated Green Warbler: first on 17 April (1). Blackburnian Warbler: first on 10 April (1). Yellow-throated Warbler: 15 April (1); 25 April (1). Chestnut-sided Warbler: first on 25 April (5). Bay-breasted Warbler: 25 April (2). Pine Warbler: 8 May (1). Prairie Warbler: first on 18 April (1). Ovenbird: first on 25 April (12). Louisiana Waterthrush: first on 15 April (1). Kentucky Warbler: 25 April (6). Yellowthroat: first on 17 April (1). Yellow-breasted Chat: first on 19 April (1). Hooded Warbler: first on 15 April (1). Canada Warbler: 23 May (1). Redstart: first on 25 April (5).

Icterids-Finches: Bobolink: 25 April (2); 8 May (8). Orchard Oriole: first on 16 April (2). Baltimore Oriole: first on 25 April (9). Rusty Blackbird: 31 March (4); 11 April (3); 25 April (4). Scarlet Tanager: first on 25 April (11). Summer Tanager: first on 25 April (4). Rose-breasted Grosbeak: first on 25 April (5). Indigo Bunting: first on 25 April (19). Purple Finch: 12 April (8). Pine Siskin: 23 May (1) on RM (FWB). Savannah Sparrow: last on 25 April (10). Grasshopper Sparrow: first on 25 April (9). Vesper Sparrow: 5 April (21); 25 April (2); 9 May (1); 23 May (1). Chipping Sparrow: first on 11 March (1). White-crowned Sparrow: last on 3 May (1). White-throated Sparrow: last on 1 May (1). Fox Sparrow: last on 20 March (10). Swamp Sparrow: last on 24 April (1). Snow Bunting: 14 March (1) on HM at 5100′ (FWB).

Locations: BL—Boone Lake, BWL—Back-woods Lake, HM—Hump Mountain, MC—Milligan College, RM—Roan Mountain.

Observers: FWB—Fred W. Behrend, JCB—J. C. Browning, LRH—Lee R. Herndon, RDM—Roby D. May, CRS—Charles R. Smith.

CHARLES R. SMITH, Route 2, Johnson City, Tennessee 37601.

BRISTOL—**Grebe-Mergansers:** Pied-billed Grebe: last 18 April (1) SHL; Great Blue Heron: last 13 March (1) BCC; Green Heron: first 18 May (2); Mallard: 1 to 5 SV 19 April-6 May; Blue-winged Teal: 10 April to 25 April (2-3); Wood Duck: first 3 April (4); Canvasback: 3 April (1); Lesser Scaup: 3 April (61); SHL; last 25 April (3); Bufflehead: last 9 March (6) SHL; Hooded Merganser: 28 March (1) SHR.

Vultures—Hawks: Black Vulture: 22 March (1); 18 April (3); Cooper's Hawk: 17 April (1) SV; Red-tailed Hawk: four records, last 18 April; Red-shouldered Hawk: 17 April (1) SV; Broad-winged Hawk: first 9 April (2); Osprey: first 10 April (1); last 18 April (2) SHL.

Rails—Gulls: Sora Rail: 25 April (1) SMM; American Coot: 18 April (3) last; Common Snipe: five records 17 April to 17 May; Spotted Sandpiper: last 25 April (6) SMM; Solitary Sandpiper: 17-18 April (2 and 1) SV; 25 April (2) SMM; Lesser Yellowlegs: 18 April (1) SHL; Ring-billed Gull: last 18 April (25) SHL; Bonaparte's Gull: 18 April (7) SHL.

Cuckoos—Swallows: Yellow-billed Cuckoo: first 2 May (1) SV; Black-billed Cuckoo: first 15 May (1) SV; Chuck-will's-widow: first 5 April (1) HV; Whip-poor-will: first 5 April (1); Common Nighthawk: first 26 April (2); Chimney Swift: first 2 April (1); Ruby-throated Hummingbird: first 23 April (1); Red-headed Woodpecker: 16 April (1) first; Yellow-bellied Sapsucker: last 17 April (2) SV; Eastern Kingbird: first 18 April (1); Crested Flycatcher: first 9 May (1); Tree Swallow: first 2 April (1); last 17 April (1) SV; Rough-winged Swallow: 17 April (1) first; Barn Swallow: first 3 April (1); Purple Martin: first 17 March (2).

Creepers—Shrikes: Brown Creeper: last 1 March (1); House Wren: first 10 April (1); Bewick's Wren: 18 April (1) Va.; Catbird: first 29 April (1);

Brown Thrasher: first 28 March (1); Robin: transient, several hundred, 20 March; Wood Thrush: first 10 April (1); Swainson's Thrush: 8 May (4); Blue-gray Gnatcatcher: 10 April (1) first; Golden-crowned Kinglet: 3 April (1); Ruby-crowned Kinglet: last 19 April (2) SV; Cedar Waxwing: (6 to 100) 26 April to 1 June; Loggerhead Shrike: first nesting record Sullivan County near BCC 15 April (nest building); 26 April (5 eggs); 15 May (5 young) WC, RS.

Vireos—Warblers: Red-eyed Vireo: first 27 April (1); Warbling Vireo: first 15 May (2); Prothonotary Warbler: 20-21 April (1) SHR (first Bristol area record) RS, WC; Worm-eating Warbler: first 11 May (1); Yellow Warbler: first 25 April (2) SMM; Myrtle Warbler: last 26 April (3); Black-throated Green Warbler: 17 April (1); Chestnut-sided Warbler: first 8 May (1); Black-poll Warbler: 10 May (1); Prairie Warbler: First 17 April (1); Ovenbird: first 17 April (1); Kentucky Warbler: first 11 May (2); Yellow-throat: first 17 April (1) SV; Yellow-breasted Chat: first 22 April (1); Hooded Warbler: first 16 April (1); Canada Warbler: 11 May (1); Redstart: first 11 May (1).

Blackbirds—Finches: Bobolink: 5-6-7 May (total of 8) SV by JS; Orchard Oriole: first 18 April (1); Baltimore Oriole: first 21 April (1); Rusty Blackbird: 17 April (6) SV; Scarlet Tanager: first 5 May (1) SV; Rose-breasted Grosbeak: first 24 April (1); Purple Finch: last 10 April (4); Savannah Sparrow: last 17 April (5) SV; Grasshopper Sparrow: first 25 April (1); Vesper Sparrow: first 28 March (4) SV; Bachman's Sparrow: 10 April (1) EV; Slate-colored Junco: last 22 April (1); White-crowned Sparrow: last 19 April (1); White-throated Sparrow: last 18 May (1) SV; Fox Sparrow: only winter or spring records 4 March to 27 March (1); Swamp Sparrow: 10 April (5) SHL; 17 April (7) SV.

Locations: BCC—near Bristol Country Club (Tenn.), SHL—South Holston Lake (Tenn.), SHR—South Holston River near Bristol, SMM—Stone Mill Marsh, Abingdon, Virginia, SV—Shady Valley, Va.—Virginia record.

Observers: JA—Judith Abbott, FB—Fletcher Bingham, CB—Claude Buckles, WC—Wallace Coffey, JD—Mrs. James Durrett, LH—Dr. Lee R. Herndon, HN—H. W. Nunley, RQ—Robert Quillen, JR—John Robinett, JS—John Shumate, RS—Roger Stone, EV—Enno vanGelder.

WALLACE COFFEY—508 Spruce Street, Bristol, Tennessee 37622.

SUMMER

NASHVILLE.—**Ducks-Sandpipers:** Blue-winged Teal: 29 Aug. (3) CL (MCW); Wood Duck: nesting RL (MCW); Osprey: 26 Aug. (1) ASM (JCO); American Coot: 5 June; 23 July; 13 Aug. (1) PWP (LOT); Killdeer: scarce; Spotted Sandpiper: 8 July (1) BL (HEP) earliest ever by two days.

Swallows-Warblers: Cliff Swallow: 97 banded RR (KAG) 19 June to 15 July; Bewick's Wren: two nesting records (HEP); Chestnut-sided Warbler: 24 Aug. (1) SB.

Locations: ASM—Ashland City Marsh, BL—Bush Lake, CL—Coleman's Lake, PWP—Percy Warner Park Pond, RL—Radnor Lake, RR—River Road.

Observers: SB—Sue Bell, MB—Mike Bierly, RC—Ruth Castles, KAG—Katherine A. Goodpasture, JCO—John C. Ogden, HEP—Henry E. Parmer, LOT—Laurence O. Trabue, MCW—Mary C. Wood.

HENRY E. PARMER, 3800 Richland Ave., Nashville, Tenn. 37205

CHATTANOOGA.—**Grebes-Ducks:** Pied-billed Grebe: 15 Aug. (1) (G&AW); 20 Aug. (1) (KHD); 28 Aug. (2) SF (JD). Great Blue Heron: First 15 July (1), SF; maximum 29 Aug. (7). Cattle Egret: 4, 5 & 6 July (1) AM (JD). Little Blue Heron: First 20 July (1) AM; regular since, maximum 20 Aug. (19), SF. Common Egret: 4 July (2); regular since, maximum 15 July (7), AM & SF. Snowy Egret: 5 Aug. (1) to 26 Aug. (2) (KHD, JD & TLR). Least Bittern: 19 July (1) & 24 July (4) AM. Black Duck: First summer records of apparently non-injured birds 3 July (1) AM (KHD & JD); then found regularly at VOW from 28 July (4) (JD); maximum 4. Pintail: 15 Aug. (1) VOW (G&AW). Green-winged Teal: Apparently a non-injured free flying female 1 & 2 Aug. AM (JD). Blue-winged Teal: 15 & 16 June (2), male & female, AM (JD); then regular from 18 Aug.; maximum 7. Redhead: A female that would not fly, VOW, from 1 Aug. (JD) to 28 Aug., also observed by KHD. Lesser Scaup: Non-flying female 8 July (KHD & JD); caught 9 July by JD and removed to AM, last seen 11 July.

Rails-Owls: King Rail: 3 nests located AM (JD). Semipalmated Plover: 13 Aug. (2); 23, 25 & 28 Aug. (3) SF. Spotted Sandpiper: First 24 July (1) AM; maximum four. Solitary Sandpiper: First 6 July (1) AM (JD); maximum 20 Aug. (10). Willet: 3 July (1) AM (KHD & JD); 23 Aug. (1) (JD). Greater Yellowlegs: 27 July (1) & 19 Aug. (1). Lesser Yellowlegs: 13 Aug. (5); 19 Aug. (3) & 25 Aug. (1). Pectoral Sandpiper: 21 July (2); regular since; maximum: 20 Aug. (19). Least Sandpiper: First 15 July (1) AM (JD). Semipalmated Sandpiper: First 27 July (2) (JD) with scattered records since. Western Sandpiper: 25 Aug. (5) & 28 Aug. (6) SF (KHD & JD), these were closely studied with the preceding species. Wilson's Phalarope: 19-23-25 Aug. (1) SF (KHD & JD). Common Tern: 19 Aug. (1) (KHD & JD); 28 Aug. (4) (JD). Least Tern: 28 Aug. (1) SF (JD); closely observed at approximately 40 yards with preceding species, with both flying and on the ground. Black Tern: 1 Aug. (4); 19 Aug. (7); 23 Aug. (18); 25 Aug. (3) (KHD & JD). Barn Owl: 1 Aug. (1) SF (KHD & JD).

Swallows-Sparrows: Bank Swallow: 29 July (6) SF (KHD); 7 Aug. (17) (JD). 30 Aug. estimated 1000+ mixed swallow flock near Dayton, understood to have been in area previous couple of weeks; JD counted proportionately: Tree Swallow (46); Bank Swallow (63); Rough-winged Swallow (12); Barn Swallow (23); Cliff Swallow (1); Purple Martin (5). Short-billed Marsh Wren: 1 Aug. to end of period; 1 to 3 SF (KHD & JD). Cedar Waxwing: 26 Aug. (2) SM (JD). Parula Warbler: 13 June (3) PCWMA. Louisiana Waterthrush: singing to 13 June PCWMA. Orchard Oriole: Last 25 Aug. Vesper Sparrow: First 28 Aug. (1) H (JD).

Locations: AM—Amnicola Marsh, H—Hixon, PCWMA—P. Cooper Wildlife Management Area, SF—Savannah Flats, VOW—Volunteer Ordnance Works.

Observers: JD—Jon DeVore, KHD—Kenneth H. Dubke, TLR—T. L. Rodgers, G&AW—Gene & Adele West.

KENNETH H. DUBKE, 3302 Navajo Drive, Chattanooga, Tenn. 37411

GREENEVILLE.—**Herons-Goatsuckers:** Common Egret: 8 and 9 July (1) A; Mallard: 2 July (one with young); 13 July (14) RF; Wood Duck: 30 June LC; Solitary Sandpiper: 29 July (1) A; Barn Owl: 11 and 12 Aug. T (C); Chuck-will's-widow: 5 June M (RN).

Finches: Blue Grosbeak: 7 June (R); Grasshopper Sparrow: 25 July two nest (4 eggs each); 26 July (2); 29 July (2); 1 Aug. (6) RF (RN).

Locations: A—Albany, LC—Lick Creek, RF—Roaring Fork, T—Tusculum.

Observers: C—Mrs. Willis Clemens, RN—Mr. and Mrs. Richard Nevius.

RICHARD NEVIUS, Route 3, Greeneville, Tennessee 37743.

ELIZABETHTON.—**Grebes-Hawks:** Pied-billed Grebe: 18 July (1) on WiL (JCB). Great Blue Heron: 11 July (1); 14, 25, 28 Aug. (1). Common Egret: 11 July (3); 18 July (1); 14 Aug. (3); 25 Aug. (2) (all at RC by WC). Little Blue Heron: 11 July (1) at RC; 18 July (1); 1 Aug. (1) at WP; 14 Aug. (4) (all by WC). Wood Duck: 11 July (1) at RC. Lesser Scaup: 18 July (1) on WiL. Common Goldeneye: 18 July (1) on WiL. Black Vulture: 27 June (4) (CRS). Cooper's Hawk: 4 June (1); 18 June (1). Broad-winged Hawk: 6 June (1); 8, 31 July (1); 12 Aug. (1).

Sandpipers-Woodpeckers: Spotted Sandpiper: 18, 22, 31 July (1); 1, 24, 29 Aug. (1). Forster's Tern: 24 Aug. (7) WaL (WC). Common Tern: 24 Aug. (10) on WaL (WC). Black Tern: 24 Aug. (4) WaL (WC). Great Horned Owl: 16 June (1) MC (CRS). Chuck-will's-widow: last 8 July (1). Whip-poor-will: last 8 July (3). Red-bellied Woodpecker: 17 June (1). Red-headed Woodpecker: 17 July (1) (HD).

Swallows-Sparrows: Cliff Swallows: 20, 29 June (1); 1 July (1); 17 July (14) SV. Yellow Warbler: 27 Aug. (1). Wilson's Warbler: 22 Aug. (2) MC (CRS). Rose-breasted Grosbeak: 14 June (2); 31 July (1). Blue Grosbeak: 9 June (1) MC (CRS). Pine Siskin: 6 June (1) RM (FWB). Red Crossbill: 6 June (2) RM (FWB). Vesper Sparrow: 17 July (1) SV (RDM, CRS).

Locations: MC—Milligan College, RC—Roan Creek, RM—Roan Mountain, SV—Shady Valley, WaL—Watauga Lake, WiL—Wilbur Lake, WP—Watauga Point Recreation Area.

Observers: FWB—Fred W. Behrend, JCB—J. C. Browning, WC—Wallace Coffey, HD—Mrs. Harold Dillenbeck, RDM—Roby D. May, CRS—Charles R. Smith.

CHARLES R. SMITH, Route 2, Johnson City, Tennessee 37601

BRISTOL.—**Herons-Ducks:** Little Blue Heron: 12 July (3) AS; Common Egret: 12 July (3) AS; Yellow-crowned Night Heron: 9 August (1—immature) BV (DC-WC-HN); Wood Ducks: 12 July (3) AS.

Hawks-Goatsuckers: Broad-winged Hawk: 22 July (1) HM; 4 August (1) SHL; Ring-necked Pheasant: 2 August (nest: 10 young, 1-egg) SV (JS); Killdeer: 20 July (25) Va.; Spotted Sandpiper: 20 July (1) SMM; 4 August (1) SHL; Common Tern: 19 August (3) SHL; Common Nighthawk: 30 August (45) Va.

Swallows-Orioles: Bank Swallow: 19 August (100); Barn Swallow: 19 August (100); Cliff Swallow: 19 August (150); Cedar Waxwing: nest 9 August (2 - eggs) SV (DC-WC-JS); Orchard Oriole: last 20 July (4 - immature).

Locations: AS—Austin Springs, BV—Bristol, Virginia, HM—Holston Mountain, Sullivan Co., SHL—South Holston Lake, SMM—Stone Mill Marsh, Abingdon, Va., SV—Shady Valley, Va.—Washington Co. Va.

Observers: DC—Don Coffey, WC—Wallace Coffey, HN—H. W. Nunley, JS—John Shumate.

JOHN WALLACE COFFEY, 508 Spruce Street, Bristol, Tenn. 37622.

THE 1965 SPRING FIELD DAYS

By T. O. S. Members

Complete lists of spring field day observations were first published by chapters in tabular form with species and numbers of individuals in 1946. Three chapters representing the three main geographical divisions of the state participated in the first state wide count. These three chapters were: Memphis, Nashville and Elizabethton. One hundred fifty-six species were listed in that first tabulated summary. Since that time as many as twelve chapters have participated in the spring count, however, the average number of participating groups has been somewhat less than the maximum. The highest number of total species was 210 in 1961. The count of 185 this year is somewhat below the average for the past ten years.

INFORMATION ON THE COUNTS

Information on the counts and the columns in the table are given progressively from west to east. Pertinent information on the counts will be found under the appropriate area titles.

MEMPHIS-REELFOOT LAKE — The count was held on 24 and 25 April with the weather ranging from fair to rain to partly cloudy. Some species were so abundant that no effort was made to keep accurate numbers. Those species are designated by FC—fairly common and C—common.

COLUMBIA — The count was conducted from noon 28 to noon 29 April, under partly cloudy skies with the temperature ranging from 39 to 68°. Participants were: William and Mary Lucy Fuqua, Don, Dan III and Gaither Gray, George R. (compiler) and Cleo G. Mayfield, Selton Porter and Evelyn Ridler.

NASHVILLE — The count was made on 24 April under perfect weather conditions, cloudless skies and the temperature in the 70's and 80's. Forty observers in ten parties reported 133 species, one less than last year. The Olive-sided Flycatcher was reported by Dr. George R. Mayfield, Jr., at Radnor Lake. The area covered was approximately the same as in recent years and included Old Hickory Lake, Woodlawn Cemetery, Radnor Lake, Moran Road, Percy Warner Park, Fernvale, Two Jays, Bush Lake, Bell's Bend and Ashland City Marsh. Laurence Trabue (compiler).

COOKEVILLE — The count was conducted on 24 and 25 April under clear skies with temperatures ranging between 63 and 78° and wind from 0 to 5 mph. The area was practically the same as for the past seven counts. Participants were: Iris Boyd, Beulah Clark, Dr. and Mrs. J. O. Cummins, Mrs. James Haile, Roy Hinds, P. L. Hollister (compiler), Elizabeth Killefer, Mrs. E. B. Night, Dr. and Mrs. Sid McGee, Mr. and Mrs. E. G. Myrick, Thelma Tenno, Francis and Robert Toline.

CHATTANOOGA — The same area as covered on the Christmas Count with extension of areas outside circle along Chickamauga Lake and covering Collegedale; circle center at National Cemetery; 6:00 P. M. 24 April to 6:00 P. M. 25 April. Intermittent showers on the south side of Chattanooga all day, other areas cloudy. Top wind velocity of 17 MPH from the south. U. S. Weather Bureau (Lovell Field), Chattanooga lists rainfall at .38 inches with maximum temperature of 76 degrees and low of 62 degrees.

Considering the number of competent observers actively afield during the period one is led to believe, on analysis, that the low count record was due to a lower concentration of migrating birds. Several species were seen prior to count period which were not seen on tally day.

Those taking part in the count were: Mr. and Mrs. James R. Barnwell,

TABULAR RECORD OF SPRING FIELD DAYS 1965

	Memphis-Reelfoot	Columbia	Nashville	Cookeville	Chattanooga	Crossville	Knoxville	Elizabethton	Bristol
Common Loon	......	1	......	......	......	......	......	......	......
Horned Grebe	......	......	6	......	......	......	......	......	......
Pied-billed Grebe	1	3	......	3	1	......	1	6	......
Great Blue Heron	1	1	3	1	......	......	3	......	......
Green Heron	......	4	8	1	6	2	10	1	......
Common Egret	41	......	......	......	......	......	1	......	......
Bl.-cr. Night Heron	......	......	2	......	1	......	......	......	......
Yl.-cr. Night Heron	......	......	2	1	2	......	......	......	......
Least Bittern	......	......	......	......	1	......	......	......	......
American Bittern	......	......	......	......	1	......	......	......	......
Canada Goose	3	......	......	......	......	......	......	......	......
Mallard	......	8	2	......	1	......	1	2	......
Gadwall	......	1	......	......	......	......	......	......	......
Blue-winged Teal	43	14	10	8	31	1	14	6	......
American Widgeon	......	2	......	......	4	1	......	......	......
Shoveler	13	4	......	......	......	......	......	......	......
Wood Duck	31	5	9	......	9	2	20	7	......
Redhead	......	......	......	......	1	......	......	......	......
Ring-necked Duck	......	......	......	......	2	......	......	......	......
Lesser Scaup	11	5	3	......	2	......	......	9	......
Com. Goldeneye	......	......	......	......	......	......	......	1	......
Bufflehead	......	......	......	......	......	......	......	13	......
Hooded Merganser	......	1	......	......	......	......	......	......	......
Turkey Vulture	......	8	29	5	2	3	16	21	......
Black Vulture	......	17	5	......	......	......	......	......	......
Sharp-sh. Hawk	......	......	1	......	......	......	1	......	......
Cooper's Hawk	......	1	2	2	1	......	2	......	......
Red-tailed Hawk	......	2	6	......	1	3	2	......	......
Red-sh. Hawk	4	......	4	1	......	......	3	......	......
Broad-winged Hawk	......	3	6	......	......	5	9	......	......
Marsh Hawk	2	......	......	......	......	1	......	......	......
Osprey	......	......	......	......	......	......	1	2	......
Sparrow Hawk	......	12	8	1	1	......	10	1	1
Ruffed Grouse	......	......	......	......	......	2	1	2	......
Bobwhite	4	8	49	34	32	5	142	35	2
King Rail	......	......	......	......	2	......	......	......	......
Virginia Rail	......	1	......	......	......	......	......	......	......
Sora	......	......	......	......	5	......	......	......	......
American Coot	21	154	20	2	......	......	......	......	......
Semipal. Plover	4	......	......	......	......	......	1	3	......
Killdeer	9	10	21	15	23	......	64	9	2
Am. Woodcock	......	6	......	......	......	......	......	......	......

Common Snipe	3	8	10	7	30	......	11	14	......
Spotted Sandpiper	5	6	17	3	6	......	11	3	......
Solitary Sandpiper	7	10	14	2	21	2	40	7	......
Greater Yellowlegs	6	4	......	......	2	......	1	2	......
Lesser Yellowlegs	24	20	......	......	11	......	2	1	......
Pectoral Sandpiper	95	8	12	......	1	......	3	......	......
Least Sandpiper	4	......	......	......	1	......	......	2	......
Semipalmated Sandpiper	......	......	2	......	......	......	......	......	......
Ring-billed Gull	......	......	6	......	......	......	......	......	4
Mourning Dove	13	36	93	85	126	11	271	28	20
Yellow-billed Cuckoo	......	1	15	5	3	......	8	......	......
Black-billed Cuckoo	......	1	......	......	......	2	3	......	......
Barn Owl	......	1	1	......	......	......	......	......	......
Screech Owl	......	......	......	......	......	......	2	1	......
Great Horned Owl	......	2	2	......	......	......	3	......	......
Barred Owl	2	3	8	......	......	......	1	......	......
Chuck-will's-widow	......	......	2	1	3	......	11	1	......
Whip-poor-will	......	1	20	3	......	......	9	3	2
Common Nighthawk	......	2	7	3	6	......	3	1	2
Chimney Swift	......	100	237	51	161	2	272	84	8
Ruby-th. Hummingbird	1	6	9	13	2	1	11	......	2
Belted Kingfisher	......	2	9	1	5	1	19	9	2
Yel.-shafted Flicker	7	3	24	40	46	4	72	43	22
Pileated Woodpecker	4	4	19	7	2	5	22	10	2
Red-bel. Woodpecker	16	11	52	20	12	2	47	5	1
Red-hd. Woodpecker	18	4	2	13	8	1	31	1	1
Yel.-bellied Sapsucker	......	......	1	8	1	......	2	2	1
Hairy Woodpecker	......	2	6	6	3	1	5	3	......
Downy Woodpecker	4	24	46	19	12	1	40	12	9
Red-cockaded Woodpecker	......	......	......	......	......	2	......	......	......
Eastern Kingbird	5	27	25	......	14	6	36	8	2
Great Cr. Flycatcher	11	19	17	......	21	7	41	2	3
Eastern Phoebe	7	8	21	4	13	5	39	9	9
Acadian Flycatcher	6	7	10	......	5	2	3	......	......
Least Flycatcher	......	......	......	......	......	......	......	3	......
Eastern Wood Pewee	2	3	4	......	4	4	11	6	2
Olive-sd. Flycatcher	......	......	1	......	......	......	1	......	......
Horned Lark	23	7	1	2	2	1	9	......	......
Tree Swallow	920	11	......	8	......	......	7	......	......
Bank Swallow	206	......	......	......	......	1	1	2	......
Rough-winged Swallow	......	85	19	......	7	3	50	16	25
Barn Swallow	12	124	64	28	29	27	81	41	1
Cliff Swallow	......	......	......	......	50	......	......	......	......
Purple Martin	3	6	96	11	110	......	140	10	......
Blue Jay	11	35	196	90	171	22	454	107	90
Common Crow	21	24	85	40	50	8	209	71	40
Fish Crow	5	......	......	......	......	......	......	......	......
Carolina Chickadee	10	24	67	24	35	5	136	32	15
Tufted Titmouse	33	27	92	39	83	7	122	66	21
White-br. Nuthatch	4	3	4	4	6	2	3	......	2
Red-br. Nuthatch	......	......	......	......	......	......	2	......	1
Brown Creeper	......	......	2	3	......	......	......	......	......

	Memphis-Reelfoot	Columbia	Nashville	Cookeville	Chattanooga	Crossville	Knoxville	Elizabethton	Bristol
House Wren	......	......	......	......	......	......	3	11	......
Bewick's Wren	......	4	10	4	2	5	2	......	......
Carolina Wren	27	10	21	9	48	3	105	47	8
Mockingbird	4	18	108	38	117	3	279	40	19
Catbird	......	13	19	36	14	3	27	17	12
Brown Thrasher	8	11	43	42	56	7	129	51	13
Robin	13	30	108	90	118	8	263	111	95
Wood Thrush	10	13	46	27	63	4	149	29	47
Hermit Thrush	......	......	2	......	......	......	......	......	......
Swainson's Thrush	2	3	1	......	......	......	4	......	......
Gray-cheeked Thrush	......	3	3	......	......	......	3	......	......
Veery	......	3	1	......	2	......	5	......	......
Eastern Bluebird	1	15	54	33	42	9	97	2	4
Blue-gray Gnatcatcher	43	28	50	4	24	11	61	10	......
Ruby-cr. Kinglet	......	1	1	......	3	......	7	......	......
Cedar Waxwing	10	21	24	52	13	......	298	......	......
Loggerhead Shrike	6	4	23	3	3	1	22	......	......
Starling	C	1,200	741	60	1,000	2	1,088	436	360
White-eyed Vireo	14	14	62	7	21	5	55	17	1
Yellow-th. Vireo	11	5	8	1	3	3	20	7	......
Solitary Vireo	......	......	......	......	......	......	3	1	......
Red-eyed Vireo	13	24	46	8	41	16	108	36	13
Philadelphia Vireo	11	......	2	......	......	......	......	3	......
Warbling Vireo	......	1	6	......	......	......	3	1	......
Black & wh. Warbler	......	6	7	......	6	13	41	19	2
Prothonotary Warbler	39	2	45	......	5	......	4	......	......
Swainson's Warbler	1	......	......	......	......	......	......	......	......
Worm-eating Warbler	......	2	3	......	......	4	10	3	......
Golden-wing. Warbler	1	1	1	......	......	7	7	......	......
Blue-winged Warbler	1	10	24	......	9	......	10	......	......
Tennessee Warbler	22	11	12	......	1	1	17	......	......
Orange-cr. Warbler	......	1	1	......	......	......	5	......	......
Nashville Warbler	8	2	5	......	......	......	16	......	......
Parula Warbler	10	2	6	......	......	7	8	11	......
Yellow Warbler	1	10	12	5	6	2	66	33	......
Magnolia Warbler	......	......	2	......	......	......	8	......	......
Cape May Warbler	......	2	......	......	1	2	8	1	......
Black-th. Blue Warbler	......	1	......	......	......	......	18	1	......
Myrtle Warbler	16	23	67	8	40	7	130	18	1
Black-th. Green Warbler	......	2	5	......	1	3	26	2	......
Cerulean Warbler	14	30	14	......	......	......	4	......	......
Blackburnian Warbler	......	......	1	......	......	......	7	1	......

Yellow-th. Warbler	4	3	9	......	4	7	1	1	......
Chestnut-sd. Warbler	......	3	2	......	......	4	12	5	......
Bay-breasted Warbler	......	......	......	......	......	......	4	2	......
Blackpoll Warbler	4	3	5	......	2	......	7	......	......
Pine Warbler	......	......	1	......	3	4	2	......	......
Prairie Warbler	......	8	24	......	22	23	62	9	......
Palm Warbler	6	44	36	1	38	2	39	......	......
Ovenbird	......	6	3	2	9	16	18	12	1
Northern Waterthrush	......	7	1	......	......	......	1	......	......
La. Waterthrush	6	2	26	8	1	3	6	1	1
Kentucky Warbler	17	8	32	......	15	3	39	6	......
Yellowthroat	44	24	39	2	25	9	109	51	1
Yellow-br. Chat	6	16	60	7	20	9	69	29	2
Hooded Warbler	......	4	3	......	......	10	20	13	......
Canada Warbler	......	......	......	......	......	......	1	......	......
American Redstart	18	6	6	......	1	1	8	5	......
House Sparrow	FC	23	114	87	358	1	208	120	135
Bobolink	......	150	......	......	......	......	11	2	......
Eastern Meadowlark	22	100	283	89	180	8	413	89	49
Redwinged Blackbird	C	150	125	50	141	20	554	52	8
Orchard Oriole	8	14	68	10	16	6	60	9	1
Baltimore Oriole	17	2	21	3	......	1	16	9	1
Rusty Blackbird	......	5	......	......	......	......	5	4	......
Common Grackle	C	250	1,460	100	231	6	785	333	370
Brown-hd. Cowbird	C	64	145	29	62	5	179	41	10
Scarlet Tanager	1	13	16	5	4	7	31	11	......
Summer Tanager	11	14	64	13	16	6	35	4	11
Cardinal	C	43	196	94	143	5	380	111	67
Rose-br. Grosbeak	1	24	48	2	12	3	71	5	......
Blue Grosbeak	......	2	......	......	12	......	6	......	......
Indigo Bunting	44	36	191	44	27	24	164	19	9
Dickcissel	16	1	......	......	......	......	1	......	......
Purple Finch	......	......	......	......	......	......	8	......	......
American Goldfinch	55	43	231	26	110	3	259	78	45
Rufous-sd. Towhee	1	16	100	68	120	14	249	65	19
Savannah Sparrow	3	3	7	......	1	......	7	10	......
Grasshopper Sparrow	......	13	5	5	9	1	12	9	......
Vesper Sparrow	......	......	......	......	......	......	4	2	......
Lark Sparrow	......	2	......	......	......	......	......	......	......
Bachman's Sparrow	......	......	......	......	1	2	......	......	......
Slate-col. Junco	......	1	......	7	2	......	2	3	......
Chipping Sparrow	7	16	76	23	44	7	136	36	15
Field Sparrow	16	25	125	35	59	3	102	56	12
Harris' Sparrow	......	1	1	......	......	......	......	......	......
White-cr. Sparrow	3	18	11	2	1	......	26	5	......
White-th. Sparrow	70	21	109	43	104	2	245	29	6
Lincoln's Sparrow	......	1	......	......	1	......	......	......	......
Swamp Sparrow	......	19	5	......	8	......	5	......	......
Song Sparrow	......	......	......	17	14	4	188	83	15
Species	**98**	**138**	**134**	**84**	**118**	**92**	**146**	**107**	**60**

Ralph (compiler) and Carol Bullard, Mrs. H. W. Crownover, Roberta Daub, Kenneth Dubke, Roy Evenson, Mr. and Mrs. Harold Meadors, Mr. and Mrs. C. F. Prestridge, Ben and Carol Ringer and Mr. and Mrs. E. M. West.

CROSSVILLE — On the return trip from the state meeting four members of TOS spent the night of 2 May in Cumberland State Park. The following day a bird count was made of the Catoosa Wildlife Management Area. The main objective was to find the Red-cockaded Woodpecker. We succeeded in locating an active nest near Mill Branch, about one mile from the formerly active area near Daddy's Creek. The adults appeared to be feeding young in the nest in a green pine about 25 feet above ground.

All of the nesting sites located in 1962 appeared to be inactive. Only one pair of birds could be found and most of the suitable habitat, at least along the main roads, appeared to be along the road leading to Daddy's Creek.

Other birds of unusual interest in the area were two Bachman's Sparrows in separate fallow fields and four Song Sparrows along the road from Crossville. Eight Song Sparrows were reported by the group at the state meeting in 1962. This would indicate that they likely breed in this area, which is the farthest west of any area in the state at which they have been reported at this late a date.

An unusual observation was that of a Marsh Hawk cruising at an elevation estimated to be between 30 and 50 feet over a field grown up in weeds, some small blackberry briar patches and a few scattered bushes. Suddenly it dove to the ground and remained out of sight there until approached to within about 150 feet, when it took off carrying its prey. Examination of the spot from which the hawk flew revealed a few feathers of a Bobwhite.

Participants: Wallace Coffey, Kenneth Dubke, Lee R. Herndon (compiler) and Charlie Smith.

KNOXVILLE — The count was conducted on Sunday 25 April. The count area included all of Knox County as in recent years. Thirty-one members in 14 parties took part. The total of 146 species compared with 147 last year. The day was fairly warm and cloudy with several showers and one downpour. The most unusual species found was an Olive-sided Flycatcher, spotted by Miss Mary Enloe. The Semipalmated Plover, Bank Swallow and Dickcissel were found by a party consisting of Quincy Gorman and Mr. and Mrs. Charles Loveday.

ELIZABETHTON — The annual spring count was made from 6:00 p.m. 24 April to 6:00 p.m. 25 April. Due to the early date of the count and the limited number of observers only 107 species were recorded. There was a light shower over part of the area during the early morning hours of 25 April but the daylight hours were warm and sunny. The usual places were covered but the main flight of migrants had not arrived. A number of ducks had not departed, which helped our count appreciably. A Chuck-will's-widow sang regularly for several weeks in the Milligan College area. This is an unusual record for Carter County. The warbler count was down both with regard to species and numbers over that of 1964 which was a week later than this year.

Participants: Mr. and Mrs. J. C. Browning (compilers), Mrs. H. Dillenbeck, Lee R. Herndon, Roby D. May, Charlie Smith and Frank Ward.

BRISTOL — The count was conducted in the vicinity of Bristol on 1 and 2 May. Participants were: Miss Esther Hilton, Mrs. C. C. Loomis and Miss Angie Loyless.

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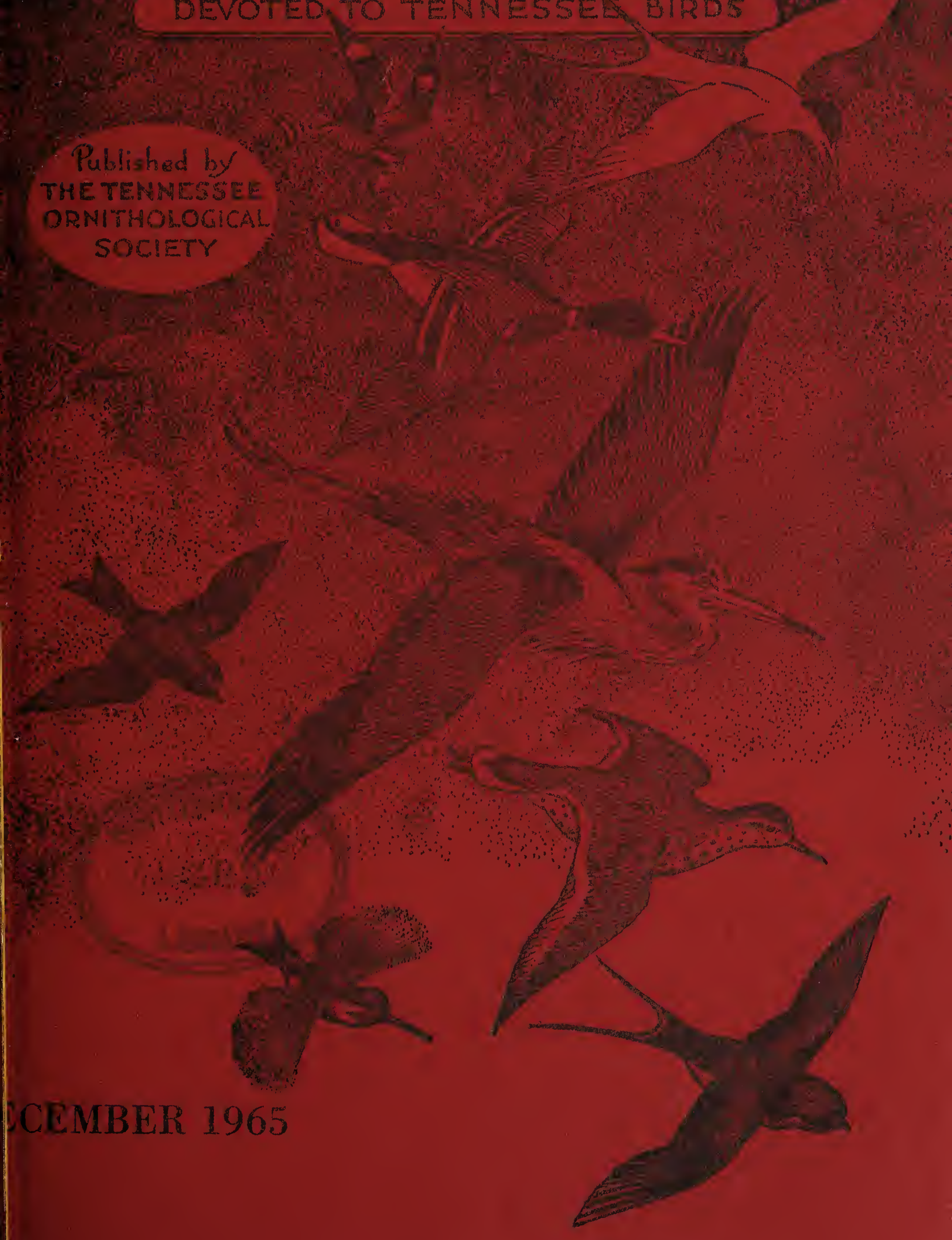

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GREEN HERONS NEST AT BASIN SPRING

Larry E. Douglass, Michael L. Bierly, Katherine A. Goodpasture

Green Herons *(Butorides virescens)* were observed to nest in Virginia pines *(Pinus virginiana)* growing in the graveyard at Basin Spring from 1952 through 1955, during which time only casual observations were made.(1) Sometime between 1955 and 1960, the cemetery site was abandoned. A new location was not found until the spring of 1965, when three concurrent nests were located in a cedar grove about a quarter of a mile south of the previous nesting area. The following is a report of more careful observations on this small colony of Green Herons.

OBSERVATIONS

The nesting site was located in a small cedar thicket surrounded by deciduous woodland about a quarter of a mile from a creek which had been dammed to form a small lake. The three nests were in separate cedars, about 15 feet apart, at heights of approximately 12, 20, and 25 feet. The unlined nests were platforms of branches, many recognizable as cedar, which were estimated to be up to 1 cm. thick. A bagworm hung from one of the branches. The presence of much whitewash on the ground at the bases of the trees made the nest-trees easily recognizable. After the eggs hatched, bluish-green shell fragments as large as half an entire egg shell were found on the ground beneath each nest. Branches and trunks of the nest-trees eventually became covered with whitewash.

Two of the nests were found on 12 May, at which time each contained four recently hatched nestlings. One nest contained an addled or infertile egg. The nestlings in this nest weighed 36, 64, 84, and 93 grams, respectively. Subsequent comparison with the weights of developing herons (Table 1) indicated that the first egg had hatched approximately five days previously. The four nestlings in the second nest were even further developed and were able to climb well enough to escape capture. The nest was not examined for fear of possible harm to the nestlings which were scrambling among the near-by branches.

At this time, 12 May, the third nest contained five eggs, which remained unhatched until 15 May. Thus hatching occurred in one nest well over a week before it occurred in the third nest of the colony. This third nest had been under observation for some time and will be discussed in some detail.

This last mentioned nest was discovered 28 April when an adult Green Heron was flushed from it. When the nest was next visited four days later, 2 May, an adult was again flushed. The nest was examined for the first time and was found to contain five warm eggs. This status remained unchanged until 15 May, seventeen days after the nest was first discovered. During the ten hour interval between 6 A.M. and 4 P.M. on 15 May, three eggs hatched. Twenty-four hours later, one of the two remaining eggs had hatched. The following day, 17 May, the fifth egg was still intact. The

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TABLE 1

Daily Weights (In Grams) of Five Nestling Green Herons

Age	Nestling number				
	1	2	3	4	5
0-10 Hours		(16, 17, or 19)*		18	13
1 day		(22, 22, or 24)*		22	19
2 days	33	34	34	32	24
3 days	42	42	42	50	37
4 days	65	69	67	63	54
5 days	80	80	82	76	61
6 days	101	89	105	102	—
7 days	113	108	118	102	—
8 days	117	120	121	—	—

* Individual weights were recorded within 10 hours of hatching, but the birds were not banded until the second day.

next day, 72 hours after the first three chicks hatched, a nestling was found to have hatched from the fifth egg. The down on this fifth bird was wet and matted at 2 P.M. on 18 May. The down on day old herons was dry and thin.

The nestlings were opening their eyes when first seen (within ten hours of hatching). They were able to raise their heads for only a short period, and their eyes tended to close when the head dropped. At times a thin opaque membrane, thought to be the nicitating membrane, was observed to rise from inside the lower eyelids. On the third day, the birds peeped and gaped in the nest but were unable to leave. On the fifth day, they extended their wings and gave a "haa" note resembling that of the parents, but still did not leave the nest. At seven days the quills of the birds began to unsheath. The quills themselves were 15 to 17 mm. in length, as compared with a length of 3 mm. on a four day old nestling. As the young birds developed, the skin about the face and neck took on a gradually deepening greenish-yellow color.

The birds soon began to climb about the nest and near-by limbs, using their wings, necks, beaks, and feet in the manner that has often been described for members of this family. By fifteen days of age they could climb far and fast enough to easily escape capture, but they were not observed to attempt flight.

The nestlings were weighed daily for nine consecutive days. With one exception these observations were made between three and six P.M. The daily weights of the nestlings are recorded in Table 1. If a bird was observed to regurgitate a minnow or minnows, the weight of the minnow(s) was added to the body weight of the bird. On the third day, regurgitation of slightly digested minnows was noted. After that, the reflex was exhibited at times as the climber approached the nest. A single regurgitation consisted of one to three minnows weighing a total of about ten grams (one-third ounce). Weights were measured with a Hanson Dietetic Scale, Model 1440, calibrated to 1 gram.

Tables 1 and 2 show that the birds gained weight during the first twen-

TABLE 2

Daily Weight Gain (In Grams) of Five Nestling Green Herons

Day of life	Nestling number				
	1	2	3	4	5
first	(3 to 8)	(3 to 8)	(3 to 8)	4	6
second	(9 to 12)	(9 to 12)	(9 to 12)	10	5
third	9	8	8	18	13
fourth	23	27	25	13	17
fifth	15	11	15	13	7
sixth	21	9	23	26	—
seventh	12	19	13	0	—
eighth	4	12	3	—	—

ty-four hours of life. The weight gain of each nestling was however, less than the average daily weight gain for that nestling. The data also show that the fifth nestling weighed less at the time of hatching than the other neslings, and gained weight at a slower rate than the rest of the birds. Another observation of interest is that the daily weight gain of each nestling was not constant, but instead showed marked variation.

During our visits the adult birds, after being flushed from the nests, made their presence known by rather discreet clucks and rasping calls from the foliage of near-by trees. Identification of alarmed adults with a particular nest was difficult to make, since the adult birds made no other effort to protect their nests. It was felt that the nestlings which were handled regularly were definitely less excitable than birds in neighboring nests at comparable ages. This minimal disturbance did not appear to markedly alter the development of the nestlings. There was no evidence of disease in these birds. Eight of the thirteen young herons were banded, and all thirteen were observed in the trees above and away from the nests two weeks after hatching.

DISCUSSION

This small Green Heron colony was visited twice daily for approximately one week before hatching and at least once daily for eight days after hatching. This schedule of brief one-half to one hour visits did not permit extensive observations of Green Heron behavior, but did allow the observers to determine that, thirteen days after a Green Heron was found to be incubating five eggs, the first three chicks hatched within ten hours of each other. The fourth egg hatched the following day, and the fifth egg hatched forty-eight hours later (three days after the first egg hatched). These notes do not allow a determination of the incubation period, but they do suggest that Green Herons do not lay an egg each day during the laying period, and that incubation begins before the clutch is complete.

These observations are in agreement with those reported by Meyerriecks in his detailed study of Green Heron breeding behavior.(2) Meyerriecks observed that Green Herons do not always lay their eggs at regular twenty-four hour intervals. In his series, females invariably laid the first two eggs forty-eight hours apart. Subsequently, either twenty-four or forty-eight hours might elapse between the laying of eggs. The twenty-four hour interval which we observed between the hatching of the third and fourth eggs suggests that these two eggs were laid twenty-four hours apart. The forty-eight hour interval between the hatching of the fourth and fifth eggs suggests that they were laid forty-eight hours apart.

Meyerriecks observed that Green Herons begin solid incubation with the deposition of the third egg. Hatching of the first three eggs within a few hours of each other one day prior to the hatching of the fourth egg suggests that, in the nest which we observed, incubation began after the third egg was laid. This instinct to begin incubation prior to completion of the clutch, an instinct noted also in Whip-poor-wills *(Caprimulgus vociferus)* at Basin Spring(3), conceivably may have survival value for those species whose eggs are laid in exposed situations.

Green Heron Nestlings

Observations of the daily weight gains of developing Green Herons have been reported previously. Wheelock (and Ferry) reported their observations on a single group of Green Heron nestlings which they examined daily.(4) Detailed data on individual nestlings are not included as they state, ". . . the young Green Herons gained one half an ounce (15 grams) in weight every day for six days, weighing three fourths of an ounce (22 grams) at the beginning and three and three fourths of an ounce (22 grams) on the seventh day." Wheelock and Ferry were careful to point out that they found the daily weight gain of the Green Heron nestling to be constant, as contrasted with the highly variable daily weight gain which they observed in "Yellow Warblers", "Thrashers", "Wood Thrushes", and "Robins".

Wheelock's observations remain, to our knowledge, the only reported study of daily weight gain in Green Herons. The difference between the findings of Wheelock and our own remains unexplained. The Green Heron nestlings which we observed, gained weight at a remarkably varying rate, anywhere from zero to twenty-seven grams per day. The cause of this marked variation is impossible to determine with certainty in an uncontrolled study such as this.

Certainly the unseen regurgitation of recent feedings could account for at least some of the inconsistent weight gain. The possibility that our visits interrupted feeding on some days, and not on other days, must also be considered. We have no reason to believe that the food supply was inconstant, although hard rainstorms of one hour's duration on several of the afternoons may have affected feeding.

It is also possible that Green Heron nestlings normally show a marked variation in daily weight gain which is independent of the environmental factors previously mentioned. Weight gain is a reflection of the rate at which food and water are utilized in the formation of tissues, muscle and bone primarily. It is not unreasonable to suspect that this rate may vary, even with abundant food and an undisturbed environment.

The Green Heron nestlings gained weight during the first twenty-four hours or so of life, and were therefore presumably fed during this time. However, the weight gain during the initial twenty-four hours was noticeably less than the average daily weight gain. These observations are in agreement with those of Meyerriecks, who found that feeding activity began about one day after hatching.(5)

The youngest nestling weighed less to begin with and gained weight at a slower rate than the older nestlings. This last hatched bird, three days younger than the first hatched birds, survived nest competition well, and it appeared strong and active in the trees as the young birds moved away from the nest.

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AUTUMN 1965 T V TOWER CASUALTIES AT NASHVILLE

By Amelia R. Laskey

From 26 April through 27 May, Clara W. Fentress collected 22 casualties of 12 species at WSIX TV tower: Catbird (2); Swainson's Thrush; White-eyed Vireo; Red-eyed Vireo; Tennessee Warbler (2); Blackpoll Warbler (8); Palm Warbler; Ovenbird; Yellowthroat; Yellow-breasted Chat; Rose-breasted Grosbeak; Indigo Bunting (2).

On two Saturday mornings, Mike Bierly found Louisiana Waterthrushes at WSM TV tower, one each date, 27 March and 3 April, 1965.

In autumn 1965, the search for casualties was started 29 August and terminated 31 October at both towers with the help of Mike Bierly, C. W. Fentress, K. A. Goodpasture, H. E. Parmer, Mr. and Mrs. Robert Sharp and their children. As in 1964, WSM, the city tower led in numbers of casualties: 681 of 51 species while WSIX totalled 176 of 41 species. The grand total numbered 857 birds of 59 species.

During most of the autumn period, fair weather prevailed with no rain. However, starting 22 Sept. through 24 there was light precipitation, northerly winds and temperatures as low as 15 degrees below normal, with chilly weather continuing a few more days. The heaviest casualties of the season occurred during this period. On the night of 23-24 Sept. there were 340 for WSM and 78 for WSIX; on 25-26 Sept. 229 for WSM, 29 for WSIX.

Leading in numbers of casualties were: Ovenbird, 187; Red-eyed Vireo, 160; Tennessee Warbler, 69; Catbird, 32; but this year there were only 27 Magnolia Warblers.

The outstanding record this year is a Cape May Warbler in immature plumage on 23 Sept. Only two autumn sight records have been published for Nashville area (1929 Jour. Tenn. Acad. Sc. 4:73) In more than 40 years since, none has been published for this area. Identification of the 1965 specimen was verified by R. C. Laybourne of U. S. National Museum and is now in the collection of A. F. Ganier. A Rose-breasted Grosbeak, collected 27 Oct. is a new extreme fall departure date. Other significant dates are: Swainson's Thrush 24 Oct.; Black-throated Blue Warbler 24 Sept.; Baltimore Oriole (4) 24 Sept.; Grasshopper Sparrow 29 Oct.; Chipping Sparrow in first year plumage on 27 Sept.

The complete list and numbers of casualties follows with WSIX listed first. An * precedes a number when that species has been found only at WSM. A single unmarked figure indicates it was found only at WSIX.

Green Heron 1; Virginia Rail 1; Mourning Dove 1; Yellow-billed Cuckoo 5; Yel-sh. Flicker 2; Yel-bel. Sapsucker 1; Yellow-bellied Flycatcher 1-2; Wood Pewee 2-1; Long-billed Marsh Wren 1-2; Catbird 13-19; Wood Thrush 3-5; Swainson's Thrush 4-7; Gray-cheeked Thrush *2; Veery 1-3; Golden-crowned Kinglet *1; White-eyed Vireo *3; Solitary Vireo *1; Yellow-throated Vireo *1; Red-eyed Vireo 17-143; Philadelphia Vireo 1-4; Black-and-white Warbler 4-31; Worm-eating Warbler *1; Golden-winged Warbler *1; Blue-winged Warbler *1; Tennessee Warbler 14-55; Orange-crowned Warbler *2; Nashville Warbler 1-4; Parula Warbler *1; Yellow Warbler *5; Magnolia Warbler 5-22; Cape May Warbler 1; Black-throated Blue Warbler *1; Myrtle Warbler 4-2; Black-throated Green Warbler 3-5; Cerulean Warbler *1; Blackburnian Warbler 3-22; Chestnut-sided Warbler 3-27; Bay-breasted Warbler 9-24; Blackpoll Warbler *1; Ovenbird 34-153; Northern Waterthrush 6-10; Kentucky Warbler 3-10; Yellowthroat 4-10; Yellow-breasted Chat 3-31; Wilson's Warbler *1; Canada Warbler 3-22; Redstart 6-17; Bobolink 5-5; Baltimore Oriole 1-3; Scarlet Tanager 1-1; Rose-breasted Grosbeak *4; Indigo Bunting 2-2; Savannah Sparrow *2; Grasshopper Sparrow *1; Chipping Sparrow 1-1; White-throated Sparrow 1-2; Fox Sparrow 1-1; Swamp Sparrow 2-1; Song Sparrow 2.

1521 Graybar Lane, Nashville, Tennessee 37215.

CASUALTIES AT SKI RESORT, GATLINBURG

By Thomas Savage

The following account reports two mortalities of migrating birds during the fall of 1965 in the Gatlinburg area. The site of both mortalities was on the slopes of Mt. Harrison, southwest of Gatlinburg. The first mortality occurred during the night of 25-26 September. Don DeFoe, park naturalist, and I gathered 51 birds at the Gatlinburg Ski Resort on the morning of the 26th. Later in the day, I gathered 39 additional birds at a condominium nearby. In the list below, these two groups are combined and considered as one mortality. The overnight low of the 24th was 62°; that of the 25th was 48°. On the night of the kill, the low was 41°. The wave of birds appears to have come in somewhat behind the "edge" of the front.

A light, steady rain fell during 1 October, with no surface wind; broken clouds were moving from the southwest, and, later, from the west. The overnight low for that morning was 65°, with a high of 80° later that day.

The rain gradually diminished during the late afternoon and early evening. An employee of the Gatlinburg Ski Resort reports that shortly before 11 P.M. a fog began to move in over the Resort area. Shortly after the fog moved in, the birds arrived. During the time of the arrival of the birds all lights were on around the Resort building, in the parking area, and along the lift up the slopes of Mt. Harrison behind the Resort. In no time at all a mass of "thousands" of birds were flying everywhere, colliding with all manner of solid objects. The overnight low of 2 Oct. was 54° and the high was 81°; there was no surface wind; broken clouds were moving in from the southeast, changing later in the day to the southwest. The overnight low for 3 Oct. was 40° and a wind developed from the northeast later in the day. Thus, the wave of birds came in after the rain front and ahead of the cold front.

Early on the morning of 2 Oct. a maintenance crew gathered all the dead and injured birds on the blacktop surrounding the Resort (2700'). I arrived about 9 A.M. and received several cartons containing, as it turned out, 1376 birds. A quick survey of the surrounding grassy area revealed more birds but no time was spent in gathering more. The following morning I learned that many dead birds were seen on the blacktop around a condominium (3000') further up the slope of Mt. Harrison. (This area is also brightly lighted at night by a number of multidirectional "arc" lights.) That afternoon Jim Campbell and Dan Ellis gathered 449 birds from the immediate vicinity of the condominium. The make-up of these two collections and the September kill follows:

The first number stands for the September kill, the second for the Resort kill in October, and the third for the October kill at the condominium.

Yellow-billed Cuckoo—0,6,1; Black-billed Cuckoo—0,1,1; Acadian flycatcher—0,1,0; Catbird—0,28,3; Wood Thrush—0,5,2; Swainson's Thush—39,697,75; Gray-cheeked Thrush—5,124,30; Veery—1,9,3; White-eyed Vireo—1,2,1; Yellow-throated Vireo—1,1,1; Red-eyed Vireo—3,13,4; Black-and-white Warbler—0,5,10; Swainson's W.—0,3,0; Worm-eating W.—2,5,0; Tennessee W.—4,31,21; Nashville W.—0,1,0; Parula W.—0,0,1; Magnolia W.—5,35,34; Cape May W.—0,3,2; Black-thr. Blue W.—0,3,3; Black-thr. Green W.—0,1,2; Blackburnian W.—1,33,19; Yellow-thr. W.—0,1,0; Chestnut-sided W.—4,30,42; Bay-breasted W.—1,20,19; Prairie W.—0,0,3; Palm W.—1,16,7; Ovenbird—12,115,61; N. Waterthrush—2,5,1; Kentucky W.—2,2,1; Yellowthroat—0,27,26; Yellow-br. Chat—0,1,0; Hooded W.—0,22,28; Wilson's W.—0,1,0; Redstart—1,19,16; Bobolink—3,3,0; Scarlet Tanager—1,86,20; Summer Tanager—0,3,2; Rose-br. Grosbeak—0,3,1; Indigo Bunting—1,11,9; Savannah Sparrow—0,2,0; Grasshopper Sparrow—0,2,0. Total Species: 20,40,32. Total individuals 90,1376,449 (=1915).

The following species constitute records, as indicated: First Fall Record: Swainson's Warbler. Late Fall Record: Worm-eating Warbler, Parula Warbler, Yellow-thr. Warbler, Kentucky Warbler, Veery, Bobolink.

Equals Late Fall Record: Acadian Flycatcher, Wilson's Warbler.

An analysis of these mortalities is being made and the results will appear in a subsequent issue of the Migrant. The aid of Mr. Arthur Stupka and Drs. James Tanner and Joseph Howell is much appreciated.

Gatlinburg, Tenn.

THE 1965 CHRISTMAS SEASON BIRD COUNTS

By TOS Members and Guests

The thirty-sixth annual Christmas Season Bird Count recorded in the following pages lists 130 species and subspecies. This exceeds all previous counts by eight species. One hundred twenty-two species have been recorded on three occasions. Sixteen counts are tabulated and three high altitude counts are given in paragraph form under the appropriate heading. The White-winged Crossbill occurs in only one of the tabulated lists and not in any of the other lists. Egyptian Goose, Semipalmated Sandpiper, Swainson's Thrush and Common Redpoll appear on the list for the first time. The origin of the Egyptian Goose is unknown but one has been in the same area most of the time for more than a year and in the meantime has been joined by a second of the species. The presence of the Semipalmated Sandpiper and Swainson's Thrush may be attributed to the mildness of the season in this latitude through the count period. The occurrence of the Common Redpoll, together with large numbers of many northern species indicate a shortage of food in northern latitudes or severity of the winter season.

INFORMATION ON THE COUNTS

Information on the counts, including comments on unusual species as well as the headings for locations at which counts were made are given progressively from west to east. The species and number of individuals are listed under the appropriate headings.

MEMPHIS.—Roughly 1953 areas; wooded bottomlands 30%, deciduous woods, city parks and cemeteries 28%, pastures, bare fields 15%, suburban roadsides 25%, river edge 2%. 26 Dec.; 6:45 a.m. to 5:30 p.m.; temp. 26° to 46°; wind NE, 1-6 mph; 24 observers in 7 parties. Total party-hours, 73 (54 on foot, 19 by car); total party-miles, 162 (52 on foot, 110 by car). Mrs. Ed Carpenter, Mr. and Mrs. Ben B. Coffey, Jr. (compilers), Dr. Julian Darlington, Mary Davant, Mr. and Mrs. Henry Dinkelspiel, Jack and Bruce Embury, Earl Fuller, Ed King, Mr. and Mrs. Leslie R. Kostka, Mr. and Mrs. Robert McGowan, S. Jack and J. P. Rini, Mrs. Henry A. Schiller, Alice Smith, Dr. and Mrs. Arlo I. Smith, Lynn Smith, R. Demett (Jr.) and Steve Smith. Also, Mrs. M. L. Torti, Mrs. C. E. Moore, Mrs. Paul C Owen, F. F. Stoner.

REELFOOT LAKE.—All points within a circle of 15 miles diameter, centering in Reelfoot Lake on west side of Starve Pond, extending northward to north end of Number nine Lake in Kentucky, eastward to Protemus and Hornbeak, Tennessee, southward to north end of Lake Isom Refuge and westward to the Mississippi River; lake 20%, fields and pastures 40%: deciduous woods 30%, river 5%, towns 5%. 29 Dec., 6:30 a.m. to 5:00 p.m. clear to partly cloudy; temp. 27° to 61°; wind W-NW, 5 to 15 m.p.h.; 16 observers in 7 parties. Total party hours 49 (25 on foot, 14 by car, 10 by boat); total party miles, 264 (13 on foot, 230 by car, 21 by boat).

A Golden Eagle had been seen in the area for several weeks prior to the count (JDeL, EC). The completely dark plumage and feathered legs were noted. The Rough-legged Hawk was observed by the Hunter Hancock party. No details were given. Semipalmated Sandpipers were observed for 25 minutes as they moved around pools in recently cultivated fields. They were observed as close as 25 to 30 yards through 7X binoculars. "Their legs were not yellow, but greenish black, they had gray backs, light breast with only faint streaks and had the thicker bill or stout bill characteristic of the Semipalmated Sandpiper." The Olive-sided Flycatcher was under observation for approximately ten minutes by three individuals (BS, WLH, JRC) through 7X binoculars at a distance of about 100 feet. It was feeding from a branch of a tree on the bank of a farm drainage ditch on the lee side of an extensive cypress area. It flew in the characteristic flycatcher manner. Its bulky head, white breast and the white patches on its sides adjacent to the wings could be clearly seen through binoculars. The Swainson's Thrush had buffy cheeks and the eye-rings were clearly observed (BS, WLH, JRC) at distances as close as 30 feet through binoculars in good light for about 20 minutes. It was feeding from a low tree limb near some thick shrubs that bordered a cypress grove and a cut over soybean field. The rufous tail coloration of the Hermit Thrush could not be seen and the breast streaks or spots were confined more to the throat area than scattered over the breast as in the Hermit Thrush. Robert C. Clemmons, John R. Conder, Eugene Cypert (compilers), Mary Louise Cypert, John L. DeLime, Harvell Denton, Willard Gray, Wayne L. Hall, Christine Hancock, Hunter M. Hancock, Guy Hogg, Edwin Larson, James M. Moynahan, Keith Pardue, Steve Pardue, Betty Sumara.

DYERSBURG.—The area covered was in and southwest of town including the airport. Most of the area was farm and pastureland, woodland, cedar groves and some ponds. 30 Dec. 7:15 a.m. to 10:00 a.m. Temp. 56°, cloudy to rain by 10:00 a.m. Two observers in one party, all on foot. Virginia Lamb (compiler) and Mike Underhill.

SAVANNAH.—All points within 15-mile diameter circle, center six miles south-east of county courthouse, including Pickwick Dam area. 21 Dec.; clear; wind, S 0-5 m.p.h., temperature 30° to 55°; eight observers in two parties. Michael Barber, Charline Cobb, George Mayfield, David Patterson (compiler), Gloria, Paul, and Roger Patterson, Andrew Rimmer.

COLUMBIA.—(Same area as in previous years). 30 Dec., 7:00 a.m. to 7:00 p.m.; weather partly cloudy; windy and dry; temp. 40°-68°, winds south 10-18 m.p.h.; 8 observers in 4 parties; 25 party hours (15 on foot, 6½ by car, 3 by canoe, ½ by plane); 224 party miles (15 on foot, 140 by car, 9 by canoe, 60 by plane); 75 species; 161,485 individuals. Found during count period but not on count day 2 Common Goldeneye and 1 Black-crowned Night Heron. William Fuqua, Daniel Gray Jr., Daniel Gray III, George Mayfield (Compiler), Cleo Mayfield, Delton Porter, Evelyn Ridley, Radford Smith.

NASHVILLE.—Same as in previous years. 26 Dec., 7:00 a.m. to 4:30 p.m.; weather clear, 29° to 40°. Wind northerly 2-12 m.p.h. 26 observers in 9 parties, plus 20 observing feeders. 88½ party hours, 39½ on foot, 25 by car. 236 party-miles, 28 on foot, 208 by car.

Seen in count period, but not on count day—One Harris' Sparrow. Mr. and Mrs. B. H. Abernathy, Dr. and Mrs. O. C. Ault, Clyde and Jean Anderson, Mr. and Mrs. W. F. Bell Sr., Mr. and Mrs. W. F. Bell Jr., Mike Bierly, Mrs. Mark Bradford Jr., Mrs. B. E. Britt, Mrs. Don Cassel, Ruth Castles, Mrs. Jack L. Clark, Mrs. Charles Cornelius Sr., Annella Creech, Mrs. Watkins Crockett, Milbry Dugger, John O. Ellis, Mrs. K. V. Everly, Charles Farrell, Mary Frazer, Dr. and Mrs. Hugh L. Fry, Albert F. Ganier, Katherine A. Goodpasture, Mr. and Mrs. Ben Groce, Stephen Greenfield, Virginia Hagen, John Herbert, Louise Jackson, Mrs. Carol Knauth, Mrs. R. E. Lynn, Henry E. Parmer (compiler), Jimmy Parrish, Mrs. W. A. Puryear, Mrs. Greer Ricketson, Mr. and Mrs. Max Schuerman, Mr. and Mrs. Kirby Stringer, Lawrence O. Trabue, James T. Welch.

OLD HICKORY LAKE.—Area same as 1961 count. 2 Jan., 6:30 a.m. to 3:00 p.m. Medium to light rain. Temp. 66° to 59°, wind NW 6-15 m.p.h. Two observers in one party; 8½ party hours (3 on foot, 5½ by car). 40 party miles (2 by foot, 38 by car). Total, 42 species, about 1735 individuals. Henry E. Parmer (compiler), Lawrence O. Trabue.

LEBANON.—The same area was covered as in previous years. 30 Dec., temp. around 60° and very windy. Myrtle B. Hobbs (compiler).

COOKEVILLE.—Area same as in previous years; 27 and 28 Dec., 6:00 a.m. to 4:30 p.m.; weather—fair; temp. 28°-54°; approximate wind velocity 2-7 miles, S. W.; observers—17; parties—10; party hours 51½; party miles (on foot 13½ miles), (by car 116½ miles); number of species—53; number of individuals—3500. Beulah Clark, Edwina Cummins, John Cummins, Caprice Haile, Roy Hines, Paul Hollister, Emma Hood, Amy Johnson (compiler), Elizabeth Killefer, Gladys Knight, Marjorie McGee, Sidney McGee, Annice Moore, J. T. Moore, Miser Richmond, Chrissa Wendt and Marie White.

CHATTANOOGA.—All points within a 15-mile diameter circle, center National Cemetery; fields and pastures 35%, woodlands 20%, ponds and lakes 15%, creeks and rivers 15%, roadside 10%, and residential 5%. 2 January; 5:00 a.m. to 5:00 p.m.; cloudy with light drizzle during a.m., lowering clouds with heavier rain during p.m., only short periods of no precipitation. Temperature 54° to 64°; wind S-SW, 5 to 9.2 m.p.h. Twenty-one observers in twelve parties. Total party-hours, 74 (38 on foot, 32 by car, 4 by boat); total party miles, 348 (54 on foot, 274 by car, 20 by boat). Seen in area during count period but not on count day: Bald Eagle. Ralph and Carol Bullard, Dr. W. K. Butts, Mrs. L. F. Cross, Mrs. Maxine Crownover, Dr. C. F. Dean, Jon DeVore (compiler), Miss Roberta Doub, Mr. Kenneth H. Dubke, Mr. Roy Evenson, Dr. and Mrs. John R. Freeman, James Garrett, Mrs. Mary Lou Meadors, Mrs. H. Nelson, Mr. T. L. Rogers, Mrs. Vita Sliger, Mrs. Mary Tunsberg, Mr. Frank Ward, Mr. and Mrs. E. M. West.

KNOXVILLE.—(Same area as in previous years), fields and pastures with hedgerows 36%, deciduous woods 36%, residential areas 13%, lakeshore 8%, pine woods 7%). 26 Dec.; 7 a.m. to 5:40 p.m. Overcast a.m. to clear p.m.; temp. 27° to 36°; wind N, 5-15 m.p.h.; ground bare, water levels low. 21 observers in 8 parties. Total party-hours, 63; total party-miles, 273 (38 on foot, 235 by car). 70 species, 17,615 individuals. The Greater Scaup was seen in good light with several Lesser Scaup. Michael Bentley, Mr. and Mrs. James M. Campbell, Daniel Ellis, John Elson, Elizabeth French, Harold Garlinghouse, Miles Haberley, Susan Hoyle, Lura James, Mr. and Mrs. Robert A. Monroe, Mrs. E. E. Overton, Paul S. Pardue, Ernest Sassi, Mr. and Mrs. Louis Smith, Mrs. T. C. Swindell, James T. Tanner (compiler), Mr. and Mrs. W. B. Williams.

GREAT SMOKY MOUNTAINS NATIONAL PARK, TENN.-N.C.—(Localities are within a 15-mile diameter circle centered on Bull Head of Mt. LeConte) same general areas as in 1937-1956 and 1962 to date. 2 January, 1966, 7:00 a.m. to 5:30 p.m. Partly cloudy-overcast, rain; temperature range 44° F.-70° F.; wind variable, 5-40 m.p.h., with gusts to 50 m.p.h.; dense fog at high elevations. Thirty-three observers in 15 parties. Total party-hours, 109 (67 on foot, 42 by car); total party-miles, 314 (82 on foot, 232 by car).

The Peregrine Falcon was observed by James M. Campbell at Indian

Gap. Seen in silhouette in flight; large size, long, pointed wings and narrow tail were noted. The House Wren was observed at Elkmont Campground from 30 to 40 feet by Mr. and Mrs. George Wood. It was larger than Winter Wren and had no white line over eye. The Catbird was seen at Elkmont by Wood. It was probably the same bird observed by De Foe on 27 December. One Pine Warbler was observed by Tanner and Howell at Pigeon Forge and three birds at a feeder at Buckhorn (Stupka). Another seen on Alum Cave Bluff Trail (Wood). Four Rusty Blackbirds (JH, JT) at Pigeon Forge and four others in Wear Valley (Monroe). The Rose-breasted Grosbeak was seen at Elkmont by Mrs. Louise Nunnally from about 35 feet. Male; black and white markings on wings, black head and a rosy wash on breast indicating characteristic V-shaped pattern. A female of this species was mist-netted, banded and photographed by DeFoe at Elkmont (within one mile of the count observation) on 9 December. The Common Redpolls were observed by Mary Enloe in Sugarland area approximately two miles south of park headquarters. Five birds were seen at one time and three birds together a short while later. The crimson patch on forehead was noted in good light, as well as black chins and streaked flanks. All birds lacked rosy wash on breast. In spite of the fact this species has not previously been reported in Great Smoky Mountains National Park, this is the second record this winter. On 14 December (De Foe and five other people) observed a single individual, from about 15-20 feet, at Sugarlands Visitor Center (approximately two miles north of count observation). This bird was feeding with a flock of about 200-250 Pine Siskins. As many as 40 White-winged Crossbills were seen on a single day in highest elevations of the park during count period by Campbell and De Foe but could not be located on count day.

Ross Bender, Steve Bender, Lowell Branham, Mr. and Mrs. James Campbell, Donald DeFoe (compiler), Jessie Dempster, Danny Ellis, John Elson, Mary Enloe, Dr. Joseph Howell, Susan Hoyle, Lura James, Beth Lacy, Henry Lix, Mrs. George McGown, Dr. Stanleigh Meaker, Mr. and Mrs. Robert Monroe, Pat Nelson, Louise Nunnally, Holly Overton, Paul Pardue, Ed Smith, Mr. and Mrs. Louis Smith, Mr. and Mrs. Arthur Stupka, Dr. James Tanner, Mr. and Mrs. W. B. Williams, Mr. and Mrs. George Wood. (Tennessee Ornithological Society, National Park Service, and guests.)

COSBY.—Eastern end of the Great Smokies. From recreation area up Rock Creek trail to Appalachian Trail along same to Low Gap and back to the recreation area. 1 Jan.; 7:30 a.m. to 5:00 p.m.; clear to heavy overcast; 60°; wind 10 to 15 m.p.h. out of the S.W. One party, four observers; 9½ party-hours; 15 party-miles, on foot. 21 species; 604 individuals. Ruffed Grouse, 2; Pileated Woodpecker, 3; Hairy Woodpecker, 2; Downy Woodpecker, 1; Common Crow, 3; Black-capped and Carolina Chickadee, 19; Tufted Titmouse, 3; White-breasted Nuthatch, 3; Red-breasted Nuthatch, 24; Brown Creeper, 3; Winter Wren, 1; Robin, 100; Golden-crowned Kinglet, 4; Ruby-crowned Kinglet, 2; Cardinal, 1; Evening Grosbeak, 6; Purple Finch, 4; Pine Siskin, 330; American Goldfinch, 65; Red Crossbill, 20; Slate-colored Junco, 7. U. M. Clemmer, Tom Leming, Richard Nevius (compiler), Dr. R. B. Spees.

GREENEVILLE.—Area—Same as in previous years. 26 Dec., 7:30 a.m. to 6:00 p.m.; cloudy to clear; temp. 30° to 50°; 15 observers in 4 parties. Total party-hours 20 (15 on foot, 5 by car); total party-miles, 86.5 (8.5 on

THE 1965 CHRISTMAS SEASON BIRD COUNTS

	Memphis	Reelfoot	Dyersburg	Savannah	Columbia	Nashville	Old Hickory	Lebanon	Cookeville	Chattanooga	Knoxville	GSMNP	Greeneville	Kingsport	Bristol	Elizabethton
Common Loon	--	5	--	8	--	--	--	--	--	--	--	--	--	3	1	--
Horned Grebe	--	--	--	4	--	--	30	--	--	2	3	--	1	--	2	--
Pied-billed Grebe	1	7	--	30	8	2	8	--	--	--	--	--	--	4	3	--
Double-cr. Cormorant	--	27	--	3	--	--	--	--	--	--	--	--	--	--	--	--
Great Blue Heron	--	14	--	--	11	5	8	15	--	1	15	--	1	3	6	--
Bl.-Cr. Night Heron	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Canada Goose	--	16,800	--	--	--	--	--	6	--	4	--	--	--	--	--	--
Snow Goose	--	1	--	--	--	--	--	--	--	--	--	--	1	--	--	--
Blue Goose	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Egyptian Goose	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--
Mallard	11	140,000	--	3	80	23	35	5,550	--	37	11	--	12	80	13	47
Black Duck	2	2,200	--	--	4	39	33	3,225	--	168	--	1	--	8	10	1
Gadwall	--	4,800	--	--	2	--	--	60	--	2	35	--	--	--	--	--
Pintail	--	200	--	--	--	--	--	220	--	--	--	--	--	--	--	--
Green-wng. Teal	1	1,100	--	--	9	--	3	120	3	3	--	--	--	--	--	--
Am. Widgeon	--	6,300	--	5	1	--	--	600	--	9	--	--	--	12	--	--
Shoveler	--	18	--	--	--	--	--	6	--	1	--	--	--	--	--	--
Wood Duck	--	2,300	--	--	11	--	--	21	--	16	--	--	--	7	--	--
Redhead	--	120	--	--	2	--	--	--	--	--	--	--	--	--	--	--
Ring-nk. Duck	1	10,500	2	2	75	21	--	1,200	--	--	1	2	--	2	--	18
Canvasback	--	250	--	--	3	24	21	26	--	--	--	--	--	76	1	--
Greater Scaup	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--
Lesser Scaup	75	650	--	23	13	158	--	800	4	57	11	1	--	30	1	1
Common Goldeneye	--	115	--	2	--	10	19	--	--	8	--	--	--	--	6	2
Bufflehead	30	28	--	2	1	--	--	--	--	--	2	--	2	22	6	8
Oldsquaw	--	--	--	3	--	--	--	--	--	--	--	--	--	--	2	--
Ruddy Duck	--	300	--	--	6	1	--	--	--	--	4	--	--	--	--	--
Hooded Merganser	--	50	--	5	7	--	--	--	--	12	5	--	--	--	12	--
Common Merganser	--	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Turkey Vulture	--	1	1	14	2	--	--	--	1	--	--	9	5	2	56	--

Black Vulture	--	18	--	--	75	3	14	--	--	--	--	--	--	--	96	--
Sharp-sh. Hawk	--	--	--	--	--	--	--	--	--	--	1	1	--	--	--	--
Cooper's Hawk	--	--	--	--	--	1	--	--	2	--	1	--	--	1	--	--
Red-tailed Hawk	19	24	3	2	9	16	2	2	2	7	4	4	1	1	--	--
Red-shouldered Hawk	--	3	--	1	1	4	1	--	--	2	1	--	--	--	--	--
Rough-legged Hawk	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Golden Eagle	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bald Eagle	--	35	--	--	--	--	--	--	--	--	--	--	--	--	1	--
Marsh Hawk	2	7	1	--	--	--	--	--	--	1	--	1	1	--	--	--
Peregrine Falcon	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
Sparrow Hawk	11	18	4	2	8	29	5	6	5	3	4	6	5	5	11	2
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	--	6	--	--	--	1
Bobwhite	113	--	16	--	5	40	--	35	19	18	--	28	34	22	2	7
Ring-necked Pheasant	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Am. Coot	1	36,000	--	500	400	--	117	265	--	1	--	--	--	--	--	--
Killdeer	19	48	2	29	6	167	8	--	5	39	16	142	9	56	9	26
Am. Woodcock	--	4	--	--	1	--	--	--	--	--	--	--	4	--	--	--
Common Snipe	36	72	--	2	8	2	4	--	5	13	5	--	6	1	3	--
Semipalmated Sandpiper	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Herring Gull	40	55	--	--	--	3	18	--	--	15	1	--	6	11	7	--
Ring-bld. Gull	100	105	--	20	--	21	162	--	--	34	43	--	--	2	25	1
Bonaparte's Gull	--	--	--	11	--	--	280	--	--	--	--	--	--	--	--	--
Mourning Dove	108	26	12	131	140	134	14	113	130	180	336	162	210	113	206	14
Screech Owl	1	--	--	--	--	--	--	--	--	--	3	--	3	1	--	--
Great Horned Owl	2	2	1	--	3	1	--	2	--	1	--	2	--	--	--	--
Barred Owl	2	1	--	--	1	--	--	--	--	1	1	--	--	--	--	--
Long-eared Owl	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--
Belted Kingfisher	1	5	--	4	8	13	9	1	--	7	1	13	6	5	13	3
Yellow-sh. Flicker	175	45	7	9	29	51	4	12	27	51	24	16	6	24	7	14
Pileated Woodpecker	7	13	--	8	4	21	--	1	12	13	15	20	12	14	4	5
Red-bel. Woodpecker	82	53	4	14	21	74	2	7	18	33	19	4	13	14	6	2
Red-headed Woodpecker	10	1	2	--	--	--	--	--	26	11	14	--	--	7	3	--
Yellow-bel. Sapsucker	51	6	1	5	21	18	--	2	4	15	11	23	6	3	4	5
Hairy Woodpecker	30	4	--	--	4	14	--	2	13	4	4	17	5	3	1	--
Downy Woodpecker	68	35	2	13	25	88	1	11	25	24	44	26	32	33	28	19

	Memphis	Reelfoot	Dyersburg	Savannah	Columbia	Nashville	Old Hickory	Lebanon	Cookeville	Chattanooga	Knoxville	GSMNP	Greeneville	Kingsport	Bristol	Elizabethton
Eastern Phoebe	1	4	--	2	1	1	--	1	12	4	2	11	--	3	--	--
Olive-sd. Flycatcher	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Horned Lark	21	9	15	--	4	125	9	--	2	5	--	1	--	23	5	--
Blue Jay	274	34	17	90	19	99	24	25	180	138	297	65	55	164	99	63
Com. Raven	--	--	--	--	--	--	--	--	--	--	--	9	--	--	--	--
Com. Crow	44	2,000	9	104	52	35,000	64	18	161	132	529	421	65	763	399	235
Fish Crow	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Black-cap Chickadee	--	--	--	--	--	--	--	--	--	--	--	180	--	--	--	--
Carolina Chickadee	184	61	2	15	58	278	11	37	45	81	195	--	44	86	118	62
Tufted Titmouse	64	120	4	27	28	179	5	33	70	53	77	73	26	100	112	46
White-br. Nuthatch	3	7	--	13	1	2	--	--	14	12	6	16	1	5	10	4
Red-br. Nuthatch	2	--	--	--	--	--	--	--	--	1	24	65	--	2	--	6
Brown Creeper	10	--	--	2	2	4	--	1	5	4	19	22	5	5	5	--
House Wren	--	--	--	--	--	--	--	1	3	--	--	1	5	--	--	--
Winter Wren	9	8	--	6	1	3	--	--	--	1	--	5	--	8	3	3
Bewick's Wren	--	--	--	--	1	4	--	4	8	2	--	1	4	2	--	--
Carolina Wren	102	21	8	9	10	47	--	1	15	61	71	55	18	61	18	33
Short-billed Marsh Wren	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mockingbird	213	23	18	27	24	162	23	14	31	138	217	64	25	69	65	50
Catbird	--	--	--	--	--	--	--	--	--	--	--	1	2	--	--	--
Brown Thrasher	21	--	1	3	--	--	--	1	4	15	3	2	2	3	--	1
Robin	2,181	16	20	84	50,000	91	--	1	79	556	92	1,149	1	202	6	292
Hermit Thrush	11	1	--	4	1	4	--	--	3	1	--	5	--	--	--	--
Swainson's Thrush	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern Bluebird	5	9	2	20	18	46	--	--	47	86	24	77	1	35	7	14
Golden-cr. Kinglet	34	18	--	8	--	9	--	--	--	6	57	83	6	47	4	9
Ruby-cr. Kinglet	52	19	--	1	5	--	1	--	--	12	10	15	1	2	--	--
Water Pipit	2	--	--	--	--	14	--	--	--	--	--	--	--	--	--	--
Cedar Waxwing	282	--	--	72	9	40	--	--	80	302	70	315	--	500	16	12
Logger-hd. Shrike	11	23	1	6	5	28	6	2	5	7	13	16	5	6	6	3
Starling	380	1,025	25	1,200	15,000	4,122	597	1,143	375	2,500	11,550	875	713	1,930	1,256	50,875
Myrtle Warbler	114	--	--	10	5	12	--	--	3	49	51	62	10	28	5	14

Pine Warbler	--	--	--	--	--	--	--	--	--	2	--	5	2	--	--	1
House Sparrow	420	760	100	26	132	114	--	60	212	372	369	148	62	200	368	255
Ea. Meadowlark	315	373	27	26	124	432	15	33	150	208	89	435	133	95	252	15
W. Meadowlark	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwinged Blackbird	575	4 mill.	--	5,000	2,100	2	--	--	11	340	110	7	8	--	4	6
Rusty Blackbird	27	29	--	450	2,240	1	--	5	4	700	52	8	--	--	--	--
Brewer's Blackbird	--	75	--	--	2	--	--	--	--	--	--	--	--	--	--	1
Common Grackle	1,950	800,000	40	10,000	90,000	5,160	--	--	1,183	33	1,065	2	225	33	1	135
Brown-hd. Cowbird	4	200,000	--	--	200	--	--	--	4	1	53	--	--	--	25	2
Cardinal	704	94	26	141	79	376	75	63	73	240	426	159	80	165	93	64
Rose-br. Grosbeak	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
Evening Grosbeak	--	--	--	--	--	--	--	--	--	--	--	540	--	--	--	--
Purple Finch	67	4	--	2	3	79	--	--	36	112	117	147	83	92	47	34
Pine Siskin	3	--	--	--	--	--	--	--	--	59	78	4,813	23	100	--	246
Am. Goldfinch	421	16	2	43	43	430	--	--	62	227	221	263	53	20	33	116
Common Redpoll	--	--	--	--	--	--	--	--	--	--	--	5	--	--	--	--
Red Crossbill	--	--	--	--	--	--	--	--	--	--	--	202	--	--	--	18
Rufous-sd. Towhee	56	--	3	6	16	86	--	4	57	82	66	48	17	36	8	7
Savannah Sparrow	36	2	--	--	1	--	--	--	--	69	1	5	--	--	--	3
Le Conte's Sparrow	5(BC)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vesper Sparrow	--	--	--	--	--	--	--	--	--	10	--	--	--	--	--	--
Slate-clo. Junco	1,067	90	40	168	42	664	31	59	128	338	125	643	8	110	241	142
Tree Sparrow	--	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chipping Sparrow	--	--	--	--	--	--	--	--	2	3	--	1	--	--	--	--
Field Sparrow	175	29	18	31	28	133	40	1	25	319	153	104	55	20	75	21
Harris' Sparrow	1	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--
White-cr. Sparrow	19	25	14	--	9	22	1	9	--	3	17	3	52	2	5	8
White-thr. Sparrow	2,284	118	125	41	95	161	12	5	78	297	382	300	46	141	64	41
Fox Sparrow	173	4	1	3	9	19	--	--	4	6	7	--	1	--	1	2
Lincoln's Sparrow	1(WLW)	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Swamp Sparrow	274	52	--	13	36	31	1	--	--	125	8	9	5	--	51	1
Song Sparrow	376	11	5	85	72	115	17	1	28	131	216	174	45	55	68	53
Total Species	75	94	39	63	75	65	42	50	53	79	68	70	60	65	63	56
Total Individuals	14,036	5,227,500	582	18,583	157,481	49,046	1,730	13,832	3,480	8,636	17,498	11,748	2,270	5,778	3,969	53,070

foot, 78 by car). Wind 5 to 10 m.p.h. S. Mrs. J. E. Collins, Mrs. Nat Coleman, Mrs. Chester Darnell, Fannie Gass, S. R. Maguire, Roger Miller, Mrs. Richard Nevius, Richard Nevius (compiler), Doris Parker, Dale Park, Henry Rucker, Dr. and Mrs. Royal Spees, Karl Spees, Earle Wright. Total species 60. Total individuals 2646.

BIG BALD MOUNTAIN.—Center head of East Fork Higgins Creek—top of Big Bald Mt. in Unicoi and Yancey counties (3500-5516 ft.); deciduous woodland 70%, grassy, treeless area on top of Mountain 30%.

1 Jan., 7:00 a.m. to 4:30 p.m. Cloudy to partly cloudy to very cloudy; temp. 44°-54°; wind SW-S, 5-15 m.p.h.; ground dry. One observer. Total hours, 9½ (all on foot). Total miles, 8 (all on foot).

Pileated Woodpecker, 1; Hairy Woodpecker, 1; Downy Woodpecker, 1; Common Raven, 1; Common Crow, 2; Carolina Chickadee, 3; Tufted Titmouse, 2; White-breasted Nuthatch, 7; Brown Creeper, 1; Winter Wren, 2; Robin, 1; Eastern Bluebird, 3; Cardinal, 1; Evening Grosbeak, 43; Purple Finch, 1; Pine Siskin, 9; Carolina Junco, 5; White-throated Sparrow, 1; Song Sparrow, 1. Total, 18 species, 88 individuals. About 40 Evening Grosbeaks in beech and birch about 5,000 ft. 2 Bluebirds at 5,300 ft. No other birds above 5,000 ft. Fred W. Behrend.

KINGSPORT.—Usual Christmas Count center at Pactolus. Bayes Mt., Patrick Henry and parts of Boone Lake, Holston River, North & South Forks, extending into Hawkins County and Scott County, Va., Reedy Creek and Horse Creek and surrounding territory, Kingsport, including two golf courses. 31 Dec., 7:15 a.m. to 5:30 p.m. Temperature 30° to 60°, clear to cloudy haze most of the day, ice on the puddles, practically no wind.

Besides the 65 species listed on the Christmas count, the following species were reported in the area during count period but not on count day: Canada Goose, Gadwall, Pintail, Common Goldeneye, Ruddy Duck, Red-breasted Merganser, American Coot, and Baltimore Oriole.

Roy Allen, Charles Baker, Joe and Thomas (compiler), Tom and Dan Finucane, Ed Gift, Wm. Hincke, Mr. and Mrs. McHorris, Mr. and Mrs. Merle Pike, George Rodgers, Arthur Smith, Mr. and Mrs. Pete Smith, Ann Switzer, Howard Young.

BRISTOL, TENN.-VA.—(All points within a 15-mile diameter circle, center same as in previous years). 26 & 27 Dec., 7 a.m. to 6 p.m. Fair; temp. 22° to 40°; wind WNW, 17 m.p.h.; no snow on ground, waters unfrozen. Twenty observers in 10 parties. Total party-hours, 55 (24 on foot, 31 by car); total party-miles, 250 (10 on foot, 240 by car).

Total, 63 species; 3969 individuals.—Mrs. Carleton L. Abbott, Mrs. Guy B. Arnold, Fletcher Bingham (co-compiler), Mrs. F. R. Bingham, F. R. Bingham, Wallace Coffey (co-compiler), Mrs. Ernest H. Dickey, Ernest H. Dickey, Mrs. H. C. Epperson, H. C. Epperson, Mrs. Earl Francisco, John D. McPeak, Mrs. Herbert S. Miller, Herbert S. Miller, Mrs. H. W. Nunley, H. W. Nunley, Robert Quillen, Charles Smith, Enno vanGelder, Henry Woodward.

ELIZABETHTON.—The same area was covered as in previous years. 2 Jan., 6:33 a.m. to 6:30 p.m., partly cloudy to cloudy to rain by mid-afternoon, temp. 60° to 70°. Twelve observers in 6 parties. Deborah and Roberta Bashor, Mary Fern Behrend, Bill Bridgeforth, J. C. Browning, Ed Davidson, Mrs. Harold Dillenbeck, Mrs. George Dove, Lee R. and Lois Herndon, Roby D. May, Jr., and Charles R. Smith (compiler).

ROAN MOUNTAIN.—Center Carvers Gap at 5500 ft.—Roan High Bluff at 6250 ft.—Balsam Seed Orchard—Balsam Road—Carvers Gap—Round

Bald and return to Carvers Gap; coniferous forest 75%, grass bald 15%, briar—rhododendron (catawbiense)—alder 10%.

29 Dec., 1965; 7:15 a.m. to 5 p.m.; sunny—partly cloudy, light traces of snow; temp. 32°-42°; wind NW-N 5-15 m.p.h.; one observer. Total party-hours, 9¾, all on foot; total party miles, 9, all on foot.

Ruffed Grouse, 1; Blue Jay, 2; Common Crow, 7; Red-breasted Nuthatch, 90; Robin, 4; Cedar Waxwing, 3; Evening Grosbeak, 182; Purple Finch, 3; Pine Siskin, 872; Red Crossbill, 6; White-winged Crossbill, 210; Slate-colored and Carolina Junco, 31; White-throated Sparrow, 3 (first recurrence of the species in 10 years in a rhododendron *(Catawbiense)* - briar-alder - spruce balsam fir habitat at 5700-5800 ft. in the same area as observed during the winter of 1955-56). Total, 13 species, 1414 individuals. Fred W. Behrend.

SPRING COUNTS

GREENEVILLE—Area around Greeneville, Tusculum, Nolichucky River, Paint Creek, Roaring Fork and Bluff Mountain. 25 Apr. 1965; 5:30 a.m. to 6:00 p.m. Intermittent showers and a temperature of 70 degrees. 12 observers. Richard Nevius, compiler.

Great Blue Heron, 3; American Bittern, 1; Canada Goose, 5; Snow Goose, 1; Egyptian Goose, 1; Blue-winged Teal, 22; Wood Duck, 14; Lesser Scaup, 6; Turkey Vulture, 8; Cooper's Hawk, 1; Red-tailed Hawk, 2; Sparrow Hawk, 3; Ruffed Grouse, 1; Bobwhite, 36; American Coot, 3; Killdeer, 6; Common Snipe, 20; Spotted Sandpiper, 1; Solitary Sandpiper, 4; Lesser Yellowlegs, 2; Mourning Dove, 72; Screech Owl, 3; Chuck-will's-widow, 2; Chimney Swift, 106; Ruby-throated Hummingbird, 2; Belted Kingfisher, 2; Flicker, 23; Pileated Woodpecker, 13; Red-bellied Woodpecker, 8; Red-headed Woodpecker, 6; Downy Woodpecker, 10; Eastern Kingbird, 13; Great Crested Flycatcher, 10; Phoebe, 13; Acadian Flycatcher, 2; Wood Pewee, 2; Tree Swallow, 2; Rough-winged Swallow, 8; Barn Swallow, 41; Purple Martin, 74; Blue Jay, 92; Common Crow, 42; Carolina Chickadee, 26; Tufted Titmouse, 27; White-breasted Nuthatch, 1; House Wren, 5; Bewick's Wren, 5; Carolina Wren, 8; Mockingbird, 76; Catbird, 8; Brown Thrasher, 56; Robin, 94; Wood Thrush, 19; Hermit Thrush,1; Bluebird, 28; Blue-gray Gnatcatcher, 17; Loggerhead Shrike, 11; Starling, 153; White-eyed Vireo, 3; Solitary Vireo, 2; Red-eyed Vireo, 8; Black and White Warbler, 4; Prothonotary Warbler, 1; Worm-eating Warbler, 1; Blue-winged Warbler, 1; Yellow Warbler, 14; Cape May Warbler, 1; Myrtle Warbler, 28; Black-throated Green Warbler, 12; Chestnut-sided Warbler, 3; Pine Warbler, 3; Palm Warbler, 1; Ovenbird, 15; Louisiana Waterthrush, 5; Yellowthroat, 18; Yellow-breasted Chat, 16; Hooded Warbler, 1; American Redstart, 2; House Sparrow, 34; Meadowlark, 95; Redwinged Blackbird, 86; Orchard Oriole, 12; Common Grackle, 147; Brown-headed Cowbird, 26; Scarlet Tanager, 11; Summer Tanager, 13; Cardinal, 85; Rose-breasted Grosbeak, 3; Indigo Bunting, 11; American Goldfinch, 36; Rufous-sided Towhee, 34; Savannah Sparrow, 2; Grasshopper Sparrow, 6; Tree Sparrow, 1; Chipping Sparrow, 54; Field Sparrow, 33; White-crowned Sparrow, 22; White-throated Sparrow, 25; Swamp Sparrow, 2; Song Sparrow.

EASTERN SMOKIES.—Cosby recreation area, up Cosby Creek to Low Gap. 8:40 a.m. to 5:00 p.m. Clear and a mild temperature. 2 May 65; two observers. Richard Nevius, compiler.

Red-tailed Hawk, 1; Broad-winged Hawk, 1; Ruffed Grouse, 3; Barred

Owl, 1; Chimney Swift, 2; Ruby-throated Hummingbird, 1; Flicker, 1; Pileated Woodpecker, 2; Hairy Woodpecker, 1; Phoebe, 1; Acadian Flycatcher, 3; Blue Jay, 1; Common Crow, 2; Tufted Titmouse, 2; Winter Wren, 1; Wood Thrush 6; Hermit Thrush, 1; Solitary Vireo, 6; Red-eyed Vireo, 11; Black and White Warbler, 4; Black-throated Blue Warbler, 1; Black-throated Green Warbler, 4; Blackburnian Warbler, 1; Ovenbird, 12; Louisiana Waterthrush, 2; Hooded Warbler, 4; Canada Warbler, 1; American Redstart, 1; Scarlet Tanager, 5; Rose-breasted Grosbeak, 6; American Goldfinch, 3; Rufous-sided Towhee, 2; Slate-colored Junco, 2; Song Sparrow.

The two preceding counts were omitted from the September issue of THE MIGRANT because they were temporarily misplaced. Ed.

THE SEASON

MEMPHIS — Loons - Ducks: C. Loon: 9 Oct. BKR; 21 Nov. BKR (HD, TC). Horned Grebe: 17 Oct. LON; 28 Nov. LCA (4) & MNL (7); BKR—24 Oct. thru 14 Nov. (4); FVL—24 Oct. & 11 Nov. (0).

Rails - Terns: Virginia Rail: 10 Oct. MFS, LW (found dead) (BC). Golden Plover: BKR, 18 Sept.-10 Oct. (2 & 1); 24 Oct. (18). Spotted Sandpiper: 5 Dec. CRIT. Greater Yellowlegs: 7 Nov. BKR. Dunlin: 17 Oct. LON (5); 24 Oct. CRIT (2). Sanderling: 3 Oct. MMS 2d Mid-South (1st by BC, 37 yrs.). Common Tern: 11 Sept. JXN (23); 18 Sept. BKR (13).

Swallows - Waxwings: Tree Swallow: 7 Nov. HEL (12); & Cooter, Mo. (400), (AS). Barn Swallow: 28 Nov. LCA (2), (LC). Red-breasted Nuthatch: 26 Sept. SNMP (2), (AS); 30 Oct. HAR (3), CFH (0), CFC (5); 31 Oct. SFSP, (AS); none, since. House Wren: 10 Oct. CRIT, (VJ); 30 Oct. CFC; 28 Nov. LCA (4); 5 Dec. CRIT (1), FVL (1). Cedar Waxwing: 26 Sept. SNMP (25), MFS. CHAP.

Finches: Pine Siskin: 10 Oct. SFSP (10) (LC); 11 Dec. OVP (25); otherwise, uncommon.

Locations: BKR—Booker, Ark., CRIT—Crittenden Co., Ark., misc. FVL—Five Lakes, incl. Horseshoe & Porter Lakes, Ark., HEL—Heloise, JXN—Madison Co., LCA—Lake Chicot, Ark., LON—Lonoke, Ark., MFS—Memphis miscl., MMS—Mammoth Spring, Ark., MNL—Moon Lake (Lula), Miss., OVP—Overton Park, SFSP—Shelby Forest S. P., SNMP—Shiloh Natl. Mil. Park. CHF, CFC—Chickasaw Forest, Hardeman Co., Chester Co.

Observers—TC—Mrs. Ed Carpenter, HD—Mrs. Henry Dinkelspiel, VJ—Victor Julia, AS—Alice Smith, LW—Mrs. Chas. Wilmeth, BC—Ben Coffey, LC—Mrs. Ben Coffey.

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NASHVILLE—Loons - Ducks: Common Loon: 20 Nov. (5), 27 Nov. (3), OHL (LOT, HEP). Horned Grebe: 27 Nov. (40+) OHL (LOT, SB). Little Blue Heron: 5 Oct. (1) RL (MCW). Canada Goose: 29 Sept.-3 Oct. (1) BL (HEP) then several small flocks early Oct. Mallard, late and scarce. Black Duck: 2 Oct. (4) BV (JP), 4 days earliest ever. Canvasback: 1 Nov. (4) BL (HEP) early. Lesser Scaup: late and scarce. Bufflehead: late and only one record. Ruddy Duck: 30 Oct. (1) BL (HEP) early. Hooded Merganser: 1 Nov. (1) BL (HEP), ties earliest ever date.

Rails - Flycatchers: Virginia Rail: 24 Sept. (1) TV Casualty ARL. Solitary Sandpiper: 17 Oct. (1) MR (MCW), 7 days latest except for a winter record. Least Sandpiper: 20 Nov. (5), 27 Nov. (2), both CL (LOT, HEP). Herring Gull: 20 Nov. (58) at dam OHL (LOT, HEP), an unusual number here. Ring-billed Gull: late. Bonaparte's Gull: 20 Nov. (55), 27 Nov. (300+) OHL (LOT, HEP). Nighthawk: 5 Sept. (232) TJ's (MB), 18 Oct. (1) (HCM). Eastern Kingbird: 10 Oct. (1) feeding TJ's (HEP), 14 days latest ever. Yellow-bellied Flycatcher: 26 Sept. (2), 30 Sept. (1), both TV casualties (ARL).

Swallows - Thrushes: Swallows: no fall records. Red-breasted Nuthatch: 3 Oct. (1) TJ's (KD), common in Oct., fairly common Nov. House Wren: 5 Oct. (1) TJ's (KAG). Winter Wren: 9 Oct. (1) TJ's (KAG). Long-billed Marsh Wren: 24 Sept. (1), 26 Sept. (2), both TV casualties (ARL). Robins: scarce by mid Nov. Swainson's Thrush: 3 Sept. (1) TJ's (KAG) and 24 Oct. (1) TV cas. (ARL). Veery: 3 Sept. (1) also TJ's (KAG).

Warblers - Orioles: Golden-winged Warbler: 6 Sept. (1) FV (RC). Parula Warbler: 19 Oct. (1) home (SB), 10 days latest ever. Cape May Warbler: 23 Sept. (1) TV cas. (ARL), first area specimen in over 9000 warbler casualties. Black-throated Blue Warbler: 24 Sept. (1) TV cas. (ARL). Blackpoll Warbler: 3 Oct. (1) TV cas. (ARL). Chestnut-sided Warbler: 19 Oct. (2) home (SB). Bay-breasted Warbler: 31 Oct. (24) RL (MCW. JOE). Mourning Warbler: 5 Sept. (2), 18 and 24 Sept. (1), all TJ's (KAG). Yellowthroat: 16 Oct. (1) home (KAG). Bobolink: 13 Sept. (1), 24 Sept. (4), 25 Sept. (1), 26 Sept. (4), all TV cas. (ARL). Baltimore Oriole: 24 Sept. (4) TV cas. (ARL), two days latest ever until a record of (2) on 12 Oct., at home RL (MPL, **fide** ARL).

Grosbeaks - Sparrows: Rose-breasted Grosbeak: 29 Oct. (1) male RL (MCW), 5 days latest ever. Dickcissel: 18-23 Oct. (2-10) home (HH). Evening Grosbeak: 28 Nov. (2) home (BHA's). Purple Finch: fairly common to date. Pine Siskin: 24 Oct. (2) 22 miles west of Nashville (KAG), a few other records to date. Slate-colored Junco: 6 Oct. (1) TJ's (KAG), scarce to date. Harris' Sparrow: 17 Nov. to date (1) home (FM), 23 days earliest ever. White-crowned Sparrow: 4 Oct. (1) home (HH), ties earliest fall date. White-throated Sparrow: late and scarce to date. Fox Sparrow: 4 Oct. (1) TJ's (KAG), 10 days earliest for fall. Lincoln's Sparrow: 4 Oct. (1) also TJ's (KAG).

Locations: BL—Bush Lake, BV—Buena Vista, CL—Coleman's Lake, FV—Fernvale, MR—Moran Road, OHL—Old Hickory Lake, RL—Radnor Lake, TJ's—Two Jays Sanctuary.

Observers: BHA—B. H. Abernathy, SB—Sue Bell, MB—Mike Bierly, RC—Ruth Castles, KD—Kenneth Dubke, JOE—John O. Ellis, KAG—Katherine A. Goodpasture, HH—Helen Hodgson, MPL—Margaret P. Leonard, ARL—Amelia R. Laskey, FM—Fanny Murphy, HCM—Harry C. Monk, HEP—Henry E. Parmer, JP—Jimmy Parrish, LOT—Lawrence O. Trabue, MCW—Mary C. Wood.

HENRY E. PARMER, 3800 Richland Ave., Nashville, Tennessee 37205.

COOKEVILLE—Cuckoos - Thrashers: Yellow-billed Cuckoo: 25 Sept. RA (RH); Common Nighthawks: 3rd week Sept. (2) (CH); Chimney Swift: last on 18 Sept. HP (CH); Ruby-throated Hummingbird: 27 Sept. HP (CH); last on 10 Oct. (RH); Eastern Kingbird: last on 14 Sept.; Catbird: last on 2 Oct. RA (RH); Brown Thrasher: unusual number in late Nov. RA (RH).

Robin - Finches: Robin: 16 Sept. (30+) (CH) last; American Redstart: 2 Oct. (2) (EBK); Rose-breasted Grosbeak: 2 Oct. (2) and each day until 15 Oct. (RH).

Locations: HP—Home Place, RA—Rickman Area.

Observers: BC—Beulah Clark, CH—Caprice Haile, RH—Roy Hines, EBK—Mrs. E. B. Knight.

MARIE WHITE, 1218 Byrne Ave., Cookeville, Tenn. 38501.

CHATTANOOGA—Loon - Ducks: Common Loon: First 11 Nov. (3) WBL (JD); maximum 25 Nov. (30); 28 in one raft. Horned Grebe: first 31 Oct. (3). Double-crested Cormorant: 17 Oct. (1) CL (KD, JD). Green Heron: last 4 Nov. (1) AM (JD). Little Blue Heron: last 25 Sept. (1). Cattle Egret: 12 Sept. (2) WBL (JD); 25 Nov. (1) CL (JD, KD). Common Egret: last 14 Nov. (3) SF. Yellow-crowned Night Heron: 7 & 16 Sept. (1). Canada Goose: first 3 Oct. (16) SF. Snow Goose: 31 Oct. (3) HI; 29 Nov. (1) WR (KD, RTB). Blue Goose: 17 Oct. (1) SF; 31 Oct. (4) HI; 7 Nov. (1) WBL (JD). Gadwall: first 14 Sept. (1) VOW (JD). Pintail: 3 Oct. (1); maximum 28 Nov. (16). Green-winged Teal: first 8 Oct. (1) AM. Blue-winged Teal: last 28 Nov. (2) CL (JD); maximum 9 Oct. (42). American Widgeon: 17 Oct. (1); maximum 28 Nov. (28). Shoveler: 9 Sept. (1) VOW (KD); 31 Oct. (2) HI; 14 Nov. (7) & 15 Nov. (1). Wood Duck: maximum 7 Nov. (26) WBL (JD). Ring-necked Duck: first 14 Nov. (12); maximum 28 Nov. (29) CL. Canvasback: 28 Nov. (6) CL. Lesser Scaup: first 14 Nov. (775) CL, Common Goldeneye: 28 Nov. (8) CL. Bufflehead: first 14 Nov. (4) CL; maximum 28 Nov. (27). Ruddy Duck: 14 Nov. (8); 25 & 28 Nov. (3) CL. Hooded Merganser: first 14 Nov. (5) CL. Red-breasted Merganser: 28 Nov. (3) CL.

Hawks - Swallows: Broad-winged Hawk: last 23 Oct. (4) SF (JD). Bald Eagle: 31 Oct. (1) HI; 29 Nov. (1 Imm.) WR (KD, RTB). Marsh Hawk: first 6 Sept. (1). Pigeon Hawk: 9 Oct. (1 Ad. male) Dayton (JD). King Rail: 7 Sept. (1) AM (JD). Sora: 7 Sept. (1) AM (JD). American Coot: first 24 Oct. (112). Semipalmated Plover: 1 Sept. (1) SF (KD). Common Snipe: first 25 Sept. (1) AM (JD); maximum 14 Nov. (25). Spotted Sandpiper: last 21 Nov. (1) SF (KD). Solitary Sandpiper: last 28 Oct. (2). Greater Yellowlegs: 25 Sept. (3) & 1 Oct. (1). Lesser Yellowlegs: last 8 Oct. (2); maximum 1 Sept. (10) SF. Dunlin: 24 Oct. (6) to 21 Nov. (7) SF; maximum 3 & 7 Nov. (12); 31 Oct. (26 in one flock) HI. Dowitcher: 24 & 25 Sept. (1) SF (JD). Semipalmated Sandpiper: regular, last 3 Oct. (1) AM (JD); maximum 4 Sept. (3). Western Sandpiper: 4 Sept. (2) AM & SF (JD); 7 Sept. (3) AM (KD) & 16 Sept. (3) VOW (JD). Herring Gull: first 31 Oct. (3) HI; maximum 11 Nov. (22) WBL (JD). Ring-billed Gull: first 20 Nov. (4) WBL (JD). Bonaparte's Gull: 3 Oct. (44) HB (AW). Forster's Tern: 26 Sept. (1) SF (JD, KD). Common Tern: 13 Sept. (1); 18 Sept. (1) WR & 2 Oct. (1) all JD. Caspian Tern: 2 Sept. (40 in one flock) CL (JD). Black Tern: regular till 18 Sept. (1) WR (JD); maximum 12 Sept. (10). Yellow-billed Cuckoo: last 16 Oct. (1) (JD). Black-billed Cuckoo: last 1 Sept. (1) (JD). Common Nighthawk: last 15 Oct. (2) H (JD). Chimney Swift: last 9 Oct. (AW). Ruby-throated Hummingbird: last 13 Oct. (1) AM (JD). Yellow-bellied Sapsucker: first 10 Oct. (AW). Eastern Kingbird: last 6 Sept. (3). Eastern Wood Pewee: last 16 Oct. Horned Lark: 16 Sept. (30) (JD). Tree Swallow: 1 Sept. (28) (JD). Bank Swallow: 1 Sept. (89) (JD). Rough-winged Swallow: 9 Oct. (2) (JD). Barn Swallow: last 15 Sept.

Nuthatches - Sparrows: Red-breasted Nuthatch: first 19 Sept. (1) EM (AW); regular since. Brown Creeper: first 15 Sept. (1). Winter Wren: 13 Nov. (1). Long-billed Marsh Wren: 9 Oct. (1) SF (JD). Short-billed Marsh Wren: 15 Sept. (1) SF (JD); 3 Oct. (1) & 17 Oct. (1). Hermit Thrush: 13 Nov. (1). Water Pipit: 17 Oct. (5); 7 Nov. (15); 25 & 28 Nov. (2) SF. Blue-gray Gnatcatcher: last 19 Sept. Golden-crowned Kinglet: first 17 Oct. (5). Ruby-crowned Kinglet: first 31 Oct. (2). Cedar Waxwings: regular since 27 Oct. (12) LP (RTB). White-eyed Vireo: last 15 Sept. (1). Red-eyed Vireo: last 3 Oct. (1). Black & white Warbler: last 28 Sept. (1). Tennessee Warbler: 19 Sept. (1) to 16 Oct. (2). Nashville Warbler: 10 Oct. (1) (JD). Yellow Warbler: last 1 Sept. (1) (KD). Magnolia Warbler: 6 Sept. to 10 Oct. Myrtle Warbler: first 17 Oct. (6). Black-throated Green: last 10 Oct. Blackburnian Warbler: 10 Sept. to 16 Oct. Yellow-throated Warbler: 10 Oct. Chestnut-sided Warbler: 10 Oct. Bay-breasted Warbler: 26 Sept. (3) (KD). Palm Warbler: 10 Oct. Yellowthroat: 17 Oct. Yellow-breasted Chat: 17 Oct. American Redstart: 19 Sept. Bobolink: 9 Sept. (1) & 17 Oct. (7) (KD). Scarlet Tanager: last 5 Sept. Summer Tanager: 19 Sept. Rose-breasted Grosbeak: 10 Oct. Blue Grosbeak: 26 Sept. (10). Indigo Bunting: 10 Oct. Purple Finch: first 6 Nov. (TSB); then regular, flocks to 15. Pine Siskin: first 17 Oct. (2) (KD), then regular in flocks to 75. Red Crossbill: 25 Nov. (1) BTWSP (JD). Savannah Sparrow: first 26 Sept. (6). Grasshopper Sparrow: 26 Oct. (2). Slate-colored Junco: first 24 Oct. (6). White-throated Sparrow: first 9 Oct. Fox Sparrow: 12 Nov. (1). Lincoln's Sparrow: 24 Oct. (1) AM (KD) & 4 Nov. (2) AM (JD). Swamp Sparrow: first 9 Oct. (1).

Locations: AM—Amnicola Marsh, BTWSP — Booker T. Washington State Park, CL—Chickamauga Lake, EM—Elder Mountain, HB—Harrison Bay, HI—Hiwassee Island, H—Hixon, LP—Leaning Pine, SF—Savannah Flats, VOW—Volunteer Ordnance Works, WBL—Watts Bar Lake.

Observers: TSB—T. S. Barr's, RTB—Ralph T. Bullards, JD—John DeVore, KD—Kenneth Dubke, AW—Adele West.

KENNETH H. DUBKE, 3302 Navajo Drive, Chattanooga, Tenn. 37411.

KNOXVILLE—Herons - Ducks: Common Egret: until 29 Oct. (2), late. Canada Goose: first on 26 Sept. (6); a late migrating flock on night of 27 Nov.

Hawks - Gulls: Broad-winged Hawk: large flights for this area on 26 Sept. Bobwhite: count on 26 Sept. was four times higher than on same date last year. Woodcock: 18 and 19 Sept. (1). Semipalmated Plover: 26 Sept. (1); few other shorebird records this season. Ring-billed Gull: first on 26 Sept. (8) (RD). Common Tern: 26 Sept. (1) (JCH).

Swifts - Vireos: Chimney Swift: last on 10 Oct. Ruby-throated Hummingbird: last on 10 Oct. Rough-winged and Barn Swallows: unusually many for the late date of 26 Sept. (GW). Wood Pewee: late on 20 Oct. (1). Olive-sided Flycatcher: 26 Sept. (1) (JBO). Red-breasted Nuthatch: first on 25 Sept.; fairly common for a few days and then decreasing to small numbers remaining through November. Bluebird: count on 26 Sept. was twice that of a year ago. Warbling Vireo: 26 Sept. (2).

Warblers - Finches: Golden-winged Warbler: 9 Oct., late (JC). Baltimore Oriole: 26 Sept. (2), late. Rusty Blackbird: 26 Sept. (4) early. Dickcissel: 26 Sept. (1) (JCH). Evening Grosbeak: 20 Nov. (12) (MS). Purple Finch: first on 30 Oct., relatively scarce this fall. Pine Siskin: 22 Nov. (3) (JTT). Fox Sparrow: 1 thru 7 Oct. (1). Lincoln's Sparrow; 8 Sept. thru November (1) at home of Mr. and Mrs. Kenneth Sanders.

Contributors: JC—James Campbell, RD—Robert Dunbar, JCH—J. C. Howell, JBO—J. B. Owen, Mrs. Kenneth Sanders, MS—Maxie Swindell, GW—George Woods.

JAMES T. TANNER, Route 10, Knoxville, Tenn.

GREENEVILLE—Grebe - Merganser: Horned Grebe: 28 Nov. (5) H. Great Blue Heron: 28 Nov. (4) H. Canada Goose: 28 Nov. (4) H. Snow Goose: 22 Sept. (1) A; 4 Oct. (1) A; 14 Nov. (1) A. Egyptian Goose: 22 Sept. (2) A; 4 Oct. (2) A; 14 Nov. (2) A. Mallard: 28 Nov. (75) H. Shoveler: 28 Nov. (2) H. Wood Duck: 17 Oct. (1) A; 1 Nov. (3) A; 13 Nov. (6) A. Common Merganser: 28 Nov. (2) H.

Vulture - Falcon: Turkey Vultures: 30 Sept. (2) A; 15 Oct. (5) A. Black Vulture: 30 Sept. (1) A; 15 Oct. (3) A. Red-tailed Hawk: 14 Oct. (1) A. Marsh Hawk: 25 Oct. (1) M. Sparrow Hawk: 15 Oct. A.

Grouse - Flycatcher: Ruffed Grouse: 6 Nov. (6) C. Bobwhite: 29 Sept. (12) A; 14 Nov. (20) R. American Coot: 28 Oct. (1) A; 28 Nov. (300) H (RM, RN). Killdeer: 22 Nov. (20) A; 24 Nov. (10) A; 26 Nov. (6) A. American Woodcock: 7 Nov. (1) A; 9 Nov. (4) A; 12 Nov. (2) A. Mourning Dove: 8 Nov. (40) A; 10 Nov. (60) A; 20 Nov. (30) A. Black-billed Cuckoo: 13 Oct. (1) A. Screech Owl: 13 Nov. (1) A; 18 Nov. (1) A. Great Horned Owl: 7 Nov. (1) A. Common Nighthawk: 1 Oct. (1) A. 2 Oct. (1) A.;15 Oct. (1) A. Chimney Swift: 10 Oct. (10) A. Ruby-throated Hummingbird: 2 Oct. (1) A; 16 Oct. (1) F. Belted Kingfisher: 14 Oct. (1) A; 30 Oct. (1) A; 24 Nov. (1) A. Yellow-shafted Flicker: 27 Oct. (1) A; 24 Nov. (1) A. Pileated Woodpecker: 12 Nov. (1) A; 29 Nov. (1) A; 25 Nov. (1) A. Downy Woodpecker: 17 Oct. (1) A; 5 Nov. (1) A.

Larks - Bluebirds: Horned Lark: 15 Sept. (5) A; 5 Oct. (10) A; 7 Nov. (2) A. Blue Jay: 9 Sept. (5) A; 1 Oct. (4) A; 5 Nov. (2) A. Common Crow: 30 Sept. (6) A; 21 Oct. (10) A; 31 Oct. (30) U; 6 Nov. (20) C. Carolina Chickadee: 31 Oct. (15) U; 24 Nov. (2) A. Tufted Titmouse: 31 Oct. (10) U; 25 Nov. (3) A. White-breasted Nuthatch: 25 Oct. (1) M; 6 Nov. (3) C. Red-breasted Nuthatch: 6 Nov. (2) C. Brown Creeper: 31 Oct. (1) U; 6 Nov. (1) C. Winter Wren: 31 Oct. (2) U; 6 Nov. (4) C. Bewick's Wren: 27 Nov. (2) A. Carolina Wren: 27 Nov. (3) A. Mockingbird: 21 Sept. (2) A; 3 Oct. (3) A; 14 Nov. (5) A. Robin: 31 Oct. (100) U; 6 Nov. (25) C. Eastern Bluebird: 21 Sept. (5) A; 9 Oct. (4) A; 20 Nov. (4) A.

Kinglets - Finches: Ruby-crowned Kinglet: 17 Oct. (1) A; 6 Nov. (1) C. Loggerhead Shrike: 15 Sept. A; 13 Oct. (2) A; 14 Nov. (2) A. Starling: 5 Sept. (25) A; 25 Sept. (10) A; 30 Sept. (5) A; 21 Oct. (6) A; 30 Oct. (15) A; 7 Nov. (7) A. House Sparrow: 30 Sept. (5) A; 22 Nov. (7) A. Eastern Meadowlark: 30 Sept. (20) A; 23 Nov. (25) A; 24 Nov. (35) A; 25 Nov. (30) A. Redwinged Blackbird: 17 Oct. (2) A. Cardinal: 15 Sept. (5) A; 13 Oct. (2) A; 7 Nov. (2) A. Pine Siskin: 6 Nov. (6) C. American Goldfinch: 6 Nov. (10) C. Rufous-sided Towhee: 31 Oct. (4) U; 6 Nov. (3) C. Vesper Sparrow: 14 Oct. (2) A. Slate-colored Junco: 6 Nov. (15) C. Field Sparrow: 31 Oct. (6) U. White-crowned Sparrow: 12 Oct. (1) A; 13 Oct. (1) A; 14 Nov. (10) A. White-throated Sparrow: 31 Oct. (8) U. Swamp Sparrow: 17 Oct. (1) A.

Locations: H—Holston River near Beech Creek, A—Albany, M—Marvin, C—Cassi Creek, R—Rader's Side track, F—Loudon, Tenn., U—Clark's Creek.

Observers: RM—Roger Miller, RN—Ruth or Richard Nevius.

RICHARD NEVIUS, Route 3, Greeneville, Tenn. 37743.

BRISTOL—Loons - Mergansers: Common Loon: first 15 Oct. (2) SHL until 26 Nov. (2) BL; maximum: 23 Oct. (10) SHL. Horned Grebe: 26 Nov. (8) BL. Pied-billed Grebe: 2 Oct. (1) first (SHL) until 26 Nov. (1) BL; maximum: 24 Oct. (10) SHL. Great Blue Heron: first 12 Sept. (1) SHL; until 26 Nov. (4) BL. Green Heron: last 26 Sept. (3) SMM-SHL. Common Egret: 23 Oct. (5) SHL (WC-TH). Mallard: 26 Nov. (10) BL. Gadwall: 26 Nov. (5) PHL. Green-winged Teal: 12 Sept. (1) SMM (WC). American Widgeon: 26 Nov. (10) PHL. Lesser Scaup: 26 Nov. (1) PHL. Bufflehead: 26 Nov. (5) BL. Hooded Merganser: 26 Nov. (2) BL.

Vultures - Hawks: Turkey Vulture: regular until 29 Oct. (1); maximum: 22 Oct. (11). Cooper's Hawk: 1 Oct. (1) SHL; 23 Oct. (1) SHL. Bald Eagle: 24 Oct. (1) SHL (WC, TH, HH); 26 Nov. (1) BL (WC, RS). Osprey: 15 Sept. (1) DV. Sparrow Hawk: 20 Sept. (2); 25 Sept. (2).

Rails - Gulls: Virginia Rail: 25 Sept. (1—dead) BV (HM, WC). Sora Rail: 12 Sept. (2) SMM (WC); 26 Sept. (2) SMM (WC). American Coot: 24 Oct. (30) SHL (WC, TH, HH). Semipalmated Plover: 12 Sept. (1) SMM (WC); 26 Sept. (2) SMM (WC). Killdeer: regular until 26 Nov. (2) BL. Common Snipe: 22 Oct. (1) SHR (WC) first. Greater Yellowlegs: 2 Oct. (1) SHL (WC, BW). Lesser Yellowlegs: 23 Oct. (1) SHL; 24 Oct. (1) SHL (WC, TH, HH). Pectoral Sandpiper: 26 Sept. (1) SMM (WC). Least Sandpiper: 23 and 24 Oct. (1) SHL. Dunlin: 26 Nov. (3) BL (WC, RS). Ring-billed Gull: first 22 Oct. (1) SHL until 26 Nov. (11) BL the maximum.

Cuckoos - Raven: Yellow-billed Cuckoo: 25 Sept. (1) SHL, last. Screech Owl: 20 Nov. (1) BV. Great Horned Owl: 6 Oct. (1) SHL (WC); 8 Oct. (1) SHL (WC). Common Nighthawk: 22 Oct. (1) BT (WC) very late; 16 Sept. (23) migration above 3000 feet elevation MV (WC, CS). Chimney Swift: last 2 Oct. (4). Ruby-throated Hummingbird: last 3 Oct. (1) WC. Yellow-shafted Flicker: 25 Sept. (3). Red-bellied Woodpecker: 3 Nov. (1) FH (WC); 26 Nov. (1) BL (WC, RS). Red-headed Woodpecker: 16 Sept. (2) MV; 13 Oct. (3) BT. Yellow-bellied Sapsucker: 1 Nov. (1) first. Wood Pewee: last: 16 Sept. (1) MV and 12 Sept. SV (JS). Horned Lark: 10 Oct. (20) TA (WC); 29 Oct. (4). Barn Swallow: last 2 Sept. SV (JS). Cliff Swallows: 4 Sept. SV (JS) last. Raven: 16 Sept. (1) MV (WC, CS); 17 Sept. (2) MV (WC, BQ).

Wrens - Vireos: Winter Wren: 22 Nov. (1) BT (WC). Catbird: last 13 Oct. (1). Brown Thrasher: 25 Sept. (1). Robin: 25 Sept. (1); 2 Oct. (2). Bluebird: 25 Sept. (2); 2 Oct. (5); 23 Oct. (1). Ruby-crowned Kinglet: first 22 Oct. (1) SHL; 29 Oct. (1). Cedar Waxwing: 23 Oct. (8); 24 Nov. (10); 25 Nov. (12). Loggerhead Shrike: 25 Sept. (1) SHL; 22 Oct. (5); 29 Oct. (1); 26 Nov. (2) BL. White-eyed Vireo: 12 Sept. (1) SMM (WC) last.

Warblers: Black-and-white Warbler: last 25 Sept. (1) SHL. Tennessee Warbler: 16 Sept. (8) MV; 17 Sept. (2) MV; 2 Oct. (22) SHL (WC, BW). Magnolia Warbler: 22 Oct. (10) SHR (WC). Cape May Warbler: 25 Sept. (2) SHL. Myrtle Warbler: first 2 Oct. (2). Black-throated Green Warbler: 17 Sept. (1) MV; Blackburnian Warbler: 16 Sept. (12) MV; 17 Sept. (6) MV. Chestnut-sided Warbler: 16 Sept. (1) MV. Bay-breasted Warbler: 25 Sept. (1) SHL (WC, DM); 2 Oct. (1) SHL (WC, BW). Blackpoll: 17 Sept. (1) MV (WC, BQ). Pine Warbler: 25 Sept. (1) SHL (WC, DM). Palm Warbler: 25 Sept. (4) first; 2 Oct. (1) SHL. Yellowthroat: 25 Sept. (2) SHL last. American Redstart: 25 Sept. (3) SHL.

Blackbirds - Finches: Redwinged Blackbird: 29 Oct. (200) PT. Common Grackle: 29 Oct. (10); 2 Oct. (2) SHL. Brown-headed Cowbird: 20 Sept. (20) PT (WC). Scarlet Tanager: last 25 Sept. (1) SHL (WC, DM). Indigo

Bunting: 23 Oct. (1) SHL (WC) last. Purple Finch: first 24 Nov. (1) BT (HCE); 26 Nov. (4) SHL (WC). Pine Siskin: 3 Nov. (2) FH (WC) first. Slate-colored Junco: 11 Sept. SV (JS) first in valley floor; 1 Nov. (15) BT (WC) first. White-throated Sparrow: first 22 Oct. (15).

Locations: BL—Boone Lake, BT—Bristol, Tenn., BV—Bristol, Virginia, DV—Damascus, Va., FH—Fish Hatchery near Tri-Cities Airport, MV—Clinch Mountain, Mendota, Va., PHL—Patrick Henry Lake, PT—Paperville, Tenn., SHL—South Holston Lake, SHR—South Holston River, SMM—Stone Mill Marsh, Abingdon, Va., TA—Tri-Cities Airport.

Observers: WC—Wallace Coffey, HCE—H. C. Epperson, HH—Harvey Hawk, TH—Tim Hawk, HM—Mrs. Herbert Miller, DM—David McPeak, BQ—Bob Quillen, CR—Carolyn Randall, JS—John Shumate, CS—Charles Smith, RS—Roger Stone, BW—Bob Wagner.

WALLACE COFFEY, 508 Spruce Street, Bristol, Tennessee 37622.

ELIZABETHTON—Loons - Mergansers: Common Loon: first on 3 Nov. (12); maximum number (31) on 14 Nov. on BL (LRH). Horned Grebe: first on 3 Nov. (1); maximum number (8) on 25 Nov. Pied-billed Grebe: maximum number (37) on 3 Oct. on WiL (JCB). Double-crested Cormorant: 3, 20, 25 Nov. (1) on BL (LRH et al.). Great Blue Heron: maximum number (15) on 25 Nov. on BL and PHL. Green Heron: last on 25 Oct. (1). Canada Goose: 12 Sept. (15); 24 Oct. (23) on PHL; 3, 6 Nov. (21) on PHL; 8 Nov. (25) on WaL; 15 Nov. (4). Mallard: first on 24 Oct. (5); maximum number (8) on 27 Nov. Black Duck: first on 24 Oct. (2); maximum number (44) on 27 Nov. on BL. Gadwall: first on 3 Nov. (9). Pintail: 6 Nov. (9) on BL (CRS); 14 Nov. (2) on BL (LRH). Blue-winged Teal: 3 Oct. (3). American Widgeon: first and maximum number (33) on 24 Oct. Wood Duck: 4 Sept. (2); 3 Oct. (1); 13 Nov. (2); 25 Nov. (7). Redhead: 14 Nov. (1) on BL (LRH). Ring-necked Duck: first on 24 Oct. (6). Canvasback: 6 Nov. (1); 13 Nov. (3). Lesser Scaup: first on 24 Oct. (15); maximum number (39) on 6 Nov. Common Goldeneye: 27 Nov. (7) on BL. Bufflehead: 24 Oct. (4); 25 Nov. (1); 27 Nov. (35) on WiL. Ruddy Duck: 24 Oct. (4) on BL; 3 Nov. (2); 14 Nov. (1). Hooded Merganser: 6 Nov. (10); 13 Nov. (17); 20 Nov. (7); 25 Nov. (4). Red-breasted Merganser: 25 Nov. (4).

Vultures - Cuckoos: Black Vulture: 3 Oct. (1); 24 Oct. (5). Red-tailed Hawk: 24 Oct. (1); 14, 23 Nov. (1). Broad-winged Hawk: 22 Sept. (1); 3 Oct. (5). Marsh Hawk: 11 Sept. (1); 3 Oct. (1). Osprey: 4 Sept. (1) at RC; 3 Oct. (1). Sparrow Hawk: 3, 26 Oct. (1); 25 Nov. (2). Turkey: 2 Nov. (1); 5 Nov. (3); all in KWMA (JB). Virginia Rail: 29 Sept. (1) (LRH). American Coot: 24 Oct. (65) on BL; 14, 25 Nov. (1). American Woodcock: 11 Sept. (1) on RM (KHD). Common Snipe: 6 Nov. (1) at MC; 14 Nov. (1) at LPN (FWB). Spotted Sandpiper: 4 Sept. (1); 4 Oct. (1). Solitary Sandpiper: 8 Sept. (1). Least Sandpiper: 14 Nov. (1) at BL (LRH). Dunlin: 24 Oct. (1); 3 Nov. (4); 6 Nov. (3); 14 Nov. (2); 20 Nov. (4); all at BL. Herring Gull: 10 Nov. (18) (FWB); 27 Nov. (1) on BL (CRS). Ring-billed Gull: first on 24 Oct. (5); maximum number (52) on 20 Nov. on BL. Common Tern: 2 Sept. (43); 6 Sept. (9). Black Tern: 4 Sept. (1) at RC (LRH). Yellow-billed Cuckoo: last on 25 Sept. (1). Black-billed Cuckoo: last on 3 Oct. (2).

Owls - Vireos: Great Horned Owl: 11 Sept. (1) on RM (WC, KHD et al.); 8 Oct., 8 Nov. (1) near MC (CRS). Barred Owl: 11 Sept. (2) on RM (WC, KHD et al.). Nighthawk: last on 27 Sept. (11). Chimney Swift: last on 10 Oct. (1). Ruby-throated Hummingbird: last on 3 Oct. (1). Red-headed Woodpecker: 15 Nov. (2) (GD, HD). Yellow-bellied Sapsucker: first on 3 Oct. (2). Hairy Woodpecker: 11 Sept. (1) on RM. Eastern Kingbird: last on 3 Oct. (1). Wood Pewee: last on 3 Oct. (8). Horned Lark: 4 Sept. (3); 14 Nov. (5). Cliff Swallow: 11 Sept. (41) on RM. Brown Creeper: 3 Oct. (1). House Wren: 25 Sept. (1) at MC. Catbird: last on 17 Oct. (1). Brown Thrasher: last on 8 Nov. (1). Wood Thrush: last on 5 Oct. (1). Hermit Thrush: 3 Oct. (1). Gray-cheeked Thrush: 3 Oct. (1). Veery: last on 11 Sept. (3). Ruby-crowned Kinglet: 3 Oct. (2); 17 Oct. (1). White-eyed Vireo: last on 3 Oct. (4). Yellow-throated Vireo: last on 3 Oct. (1). Red-eyed Vireo: last on 3 Oct. (4). Warbling Vireo: last on 3 Oct. (1).

Warblers: Black-and-white Warbler: last on 25 Sept. (1). Worm-eating Warbler: last on 20 Sept. (1). Tennessee Warbler: last on 13 Oct. (1). Orange-crowned Warbler: 3 Oct. (2) (ED). Nashville Warbler: 3 Oct. (1) (ED). Yellow Warbler: last on 3 Oct. (5). Magnolia Warbler: 20 Sept. (1); 3 Oct. (2); 4 Oct. (1). Cape May Warbler: first on 11 Sept. (1); last on 4 Oct. (1). Black-throated Blue Warbler: last on 3 Oct. (2). Myrtle Warbler: first on 26 Sept. (1). Black-throated Green Warbler: last on 3 Oct. (5). Blackburnian Warbler: last on 3 Oct. (4). Chestnut-sided Warbler: last on 3 Oct. (2). Bay-breasted Warbler: 20 Sept. (10); 3 Oct. (4). Pine Warbler: 3 Oct. (4). Prairie Warbler: last on 4 Oct. (1). Palm Warbler: first on 11 Sept. (2); last on 23 Oct. (3). Ovenbird: last on 3 Oct. (1). Northern Waterthrush: 25 Sept. (1); 3 Oct. (1). Yellowthroat: last on 3 Oct. (9). Yellow-breasted Chat: last on 3 Oct. (1). Hooded Warbler: last on 3 Oct. (3). Wilson's Warbler: 20 Sept. (1). Redstart: last on 3 Oct. (4).

Orioles - Sparrows: Orchard Oriole: 11 Sept. (1). Rusty Blackbird: 24 Oct. (1); 6 Nov. (3). Scarlet Tanager: last on 20 Sept. (5). Summer Tanager: last on 20 Sept. (1). Rose-breasted Grosbeak: last on 3 Oct. (5). Evening Grosbeak: first on 7 Nov. (15) on RM (FWB). Indigo Bunting: last on 3 Oct. (29). Purple Finch: 17 Oct. (1); 14 Nov. (2); 25 Nov. (1). Pine Siskin: first on 11 Sept. (4) on RM; maximum number (300-500) on 7 Nov. on RM (FWB). Red Crossbill: 11 Sept. (2); 17 Oct. (5); 7 Nov. (3); 14 Nov. (12); 20 Nov. (3); all on RM (FWB). Savannah Sparrow: 3 Oct. (1); 3 Nov. (10). Vesper Sparrow: 17 Oct. (1). Chipping Sparrow: last on 17 Oct. (2). White-crowned Sparrow: first on 12 Oct. (1). White-throated Sparrow: first on 3 Oct. (5). Fox Sparrow: 17 Oct. (1); 7 Nov. (1). Lincoln's Sparrow: 3 Oct. (2) (ED).

Locations: BL—Boone Lake, KWMA—Kettlefoot Wildlife Management Area, LPN—Lake Phillip Nelson, MC—Milligan College, PHL—Patrick Henry Lake, RC—Roan Creek, RM—Roan Mountain, WaL—Watauga Lake, WiL—Wilbur Lake.

Observers: FWB—Fred W. Behrend, JCB—J. C. Browning, JB—Jack Brumit, WC—Wallace Coffey, ED—Ed Davidson, HD—Mrs. Harold Dillenbeck, GD—Mrs. George Dove, KHD—Kenneth H. Dubke, LRH—Lee R. Herndon, CRS—Charles R. Smith.

CHARLES R. SMITH, Route 2, Johnson City, Tennessee 37601.

BOOK REVIEWS

THE BIRDS OF KENTUCKY by Robert M. Mengel. Monograph No. 3, published by Amer. Ornithologist's Union, 1965, pp. 1-581 — I-XIV, illust. by the author. $10.00 — This highly informative book of nearly 600 pages describes in much detail all of the 296 species of and 33 subspecies of birds definitely known to have occurred within the state. The first 150 pages gives the history of the development of bird knowledge in Kentucky and of those who have been active in bird study; a physical description of the state; a list of collections examined; a discussion of the changes in bird life through the years, and other pertinent matter of interest.

This section is followed by accounts of each species, under the headings of status, spring, breeding records, distribution, fall and winter, geographical variation, and data on specimens examined. Under *status,* the author gives the degrees of abundance, the seasonal occurrence and the areas most favored. Under *spring,* is given the time of arrival and leaving of species that winter southward and the time of leaving of transients and winter residents. Under *breeding records,* will be found detailed nesting data culled from published records and from the author's own extensive field work. *Breeding distribution,* attempts to show which areas in the state are favored by each species and the ecological complex that is attractive to them. *Fall and winter,* includes occurrence records, migration and the status of each species present during these seasons. Under *geographic variation,* the author discusses the occurrence of the subspecies present (in many cases two or three) based on examination of several thousand study skins. To those not interested in systematics, this section may be skipped over, at least until such time as the reader has developed an appreciation of this phase of bird study. In the last section, data is given on *specimens examined,* which data covers locality, date, sex, name of collector, etc.

Thus it will be seen that information on any species in our adjoining state can be quickly found in condensed form. Where further information is desired on the records given, the source of the information is cited and will be found in a bibliography (literature cited) covering 35 pages. At the end of the annotated list will be found a Hypothetical List of 17 species which for one reason or another do not meet the standards set for inclusions in the main list. This is followed by a list of 30 species recorded in earlier literature but which are even less acceptable and are not included in either of the above lists.

The author's careful study of the literature cited and of the necessary dividing of the wheat from the chaff has been impartially done. The reader is thus given confidence in the work and the information imparted. In the role of compiler, he was handicapped by the earlier appearance of two books which purported to give a history of the birds of the state but which were grievously filled with errors. He also was confronted with the question of what to do about the "tall-tales" of Audubon, written apparently from memory long after his early experiences. Because of this, it became doubly incumbent upon Dr. Mengel that his presentation should be above reproach.

The foundation for this book was produced by him as a thesis for his doctorate at the University of Michigan. His field work in Kentucky had been done sporadically from 1937 to 1947 and then intensively through 1952, in order to gather the substantial material necessary for the present work. During this period he made an excellent collection of study skins from which to draw conclusions on the presence of species and subspecies. He examined and describes 18 different collections of Kentucky birds, mostly small ones, and incidentally described their condition. Of them he says, "Useful as they have been in many cases for the present purpose, several of the above collections above described provide sad examples of the deterioration to which bird specimens are subject when not assured of adequate continuity of interest and care." This reviewer can appreciate the concern expressed when he contemplates the final disposition of his own comprehensive collection.

The author is heavily indebted to his fellow members of the Kentucky Ornithological Society for having gathered important and usable information and placing it on record in their little quarterly, THE KENTUCKY WARBLER. The several editors of this journal have endeavored, but not always with success, to see that published information would come up to a standard acceptable for future use. He likewise profited from Dr. Alexander Wetmore's "Notes on the birds of Kentucky" 1940, giving the results of the U. S. National Museum's expedition into the state, during the course of which more than a thousand study skins were prepared for the national collection.

With so much information made available in the book, it would seem trivial to draw attention to a few apparent omissions. One however I would like to call attention to, it being I suppose an oversight by the author, that he did not relate how Alexander Wilson, when he rode horseback (not walked) from Lexington, Ky., to Nashville in April, 1910, succeeded in discovering, painting and naming the Kentucky Warbler; truly a "hi-lite" in the state's ornithological history.

The book is illustrated with four color plates of the author's paintings of birds at their nests and a number of well executed pen-and-ink sketches. He is one of America's best bird artists and we are left with a wish that more of his pictures could have been afforded. Forty-four diagrams and small distributional maps provide further condensed information. All in all, the book represents a stupendous amount of time, industry and talent, coupled with the author's ability to present his findings in concise, clearcut language, reverting to technical usage only when this is necessary. To students of Tennessee bird life, it should be the most useful reference book available and acquisition of a copy is heartily recommended.—ALBERT F. GANIER, Nashville 12.

MEMO.—"The Birds of Kentucky" is available from Burt L. Monroe, Treasurer, A. O. U., Anchorage, Ky. The price is $10.00 postpaid or $8.00 to members of the American Ornithologist's Union. Incidentally, membership in the A. O. U. is available to all who are sincerely interested in birds and application may be made to the Treasurer. The dues are $5.00 annually and this includes THE AUK, the quarterly journal, of which Robert Mengel is the present editor.

THE APPALACHIANS — by Maurice Brooks. Illustrated with photographs and line drawings by Lois and Louis Darling. Houghton Mifflin Company, Boston. The Riverside Press, Cambridge. 1965. 346 pp. $6.95.

This book should be of particular interest to many of our members since it is home for some of us. Many of our readers know certain portions of the area intimately, however, the author draws our attention to many features which we normally overlook or we are not aware of their presence.

In the first chapter the author credits one of our own local chapter members of TOS, an ardent, all weather birder and hiking enthusiast, Fred W. Behrend, whose persistent efforts led to the finding of Snow Buntings wintering on the balds in the vicinity of Roan Mountain. Thus is shown the relationship of a southern highland to a northern latitude of lower elevation. This situation is reflected in other avian species, such as the Winter Wren, Golden-crowned Kinglet and Canada Warbler breeding on or near the summit of the higher peaks and then being absent for several hundred miles to the north until a favorable environment occurs.

The author vividly describes a wide variety of situations from the islands in the Gulf of St. Lawrence to Georgia and Alabama. Both flora and fauna have been presented in a manner which indicates intimate familiarity with even the most unusual of varieties of both. This information is presented in nontechnical terms so that the layman may understand and appreciate the uniqueness of phenomena of a variety of the region.

Chapters are devoted to hawk migrations, the woods warblers, trails and parkways, alpine summits, mountain heaths, ferns, salamanders, cultures and crafts.

Having lived within the region all his life, the author has traveled over many of the roads and trails leading to some of the more remote areas and scenic spots of the region. Some of the more unusual features are described in detail, such as the rhododendron gardens on top of Roan Mountain, the azalea balds in the Smokies, mountain laurel and many other flowering trees and shrubs. The fall display of colored foliage of the hardwood trees is unexcelled.

The book is heartily recommended to anyone who is interested in nature and the out of doors.—LEE R. HERNDON.

ROUND TABLE NOTES

LONG-EARED OWLS, COLUMBIA.—On the morning of our Christmas Count, December 30, 1965, George Mayfield, Jr., Delton Porter of Lewisburg, and Radford Smith of Murfreesboro were passing thru a thick stand of 30 foot Pine trees on the Halliday farm 3 miles southwest of Columbia looking for Ruby-crowned Kinglets, which were found, when to their surprise appeared two owls with long ears similar to the Great Horned Owl except that all 3 observers immediately were aware that they were smaller and thinner than any Great-Horned Owl ever observed. The thought immediately crossed my mind that here was the Long-eared Owl frequently seen in the Peterson's Guide, but never before seen by any of these observers. All 3 observers were aware that they could not be Great Horned Owls and indeed these owls sat close to the trunk of the pine tree until we were within about 30 feet, quite in the fashion described in the Peterson's Guide Book. We were surprised to learn that these birds winter from our area south to the Gulf of Mexico, since we had never before observed them. Perhaps the gradually developing habit of planting large stands of Loblolly Pines in the area accounts for their presence here. The birds were observed on the following day by the Grays and Fuquas and we hope they are planning to spend the winter here. The woods is rather remote and their presence is not being announced to non-birders for fear of trophy hunters.

GEORGE R. MAYFIELD, JR.

PURPLE MARTIN ROOST ON COLUMBIA SQUARE.—On or about the first of August a large number of Purple Martins were first observed circling over the Public Square in the late evening in Columbia, Tennessee. In the first week of August, this was checked by several of the local birders who found that they were actually roosting in the trees around the square much as the Starlings do later in the year. In fact a lesser number of Starlings, perhaps 100, roosted with the Martins. At least 1000 Martins persisted until the first of September and several hundred were observed as late as September 8.

GEORGE R. MAYFIELD, JR., Maury County Hospital, Columbia, Tenn.

FULVOUS TREE DUCKS BELOW NORRIS DAM, ANDERSON COUNTY.—On 29 January, 1965, a flock of Fulvous Tree Ducks *(Dendrocygna bicolor)* spent most of the day resting in a field below Norris Dam.

At 2:00 p.m. TVA Safety Officer Lyle Higdon called to see if I would come and identify a flock of ducks sleeping in one of the fields below the dam. He said the ducks had been there since morning and they were unlike any duck he had ever seen. I went by the TVA Forestry Office and persuaded Fred Emerson, Gordon Hall, and Ben Jaco — all biologists and birders — to go with me.

When we arrived at the forks where the lower road goes to the powerhouse, we saw a huddle of brownish-colored ducks about 100 feet from the road. There were 31 of them, and they appeared so exhausted that neither auto traffic nor birdwatchers made them move a feather. For 30 minutes we studied them with our glasses from the road and concluded they were Fulvous Tree Ducks. Then the men crawled under the fence and slowly moved within 20 feet of the birds, where they stood for another 30 minutes comparing them with pictures and descriptions in my copy of Kortright's "The Ducks, Geese and Swans of North America." None of the three men had seen a Fulvous Tree Duck before, and they were determined to make certain of their identification. Finally, they deliberately forced the birds to fly, and everyone was satisfied they were Fulvous Tree Ducks. The ducks circled low and set back down in a huddle in the next field. A little later in the afternoon they took to the air and disappeared over the dam. Despite some diligent searching they were not seen again.

Unlike any other duck that can normally be expected in east Tennessee, the Fulvous Tree Duck has long legs and stands partially upright. Its breast and most of its neck and head are buffy brown. Its back has a dark brown pattern, and a cream-colored streak runs along its side. In flight its blue feet extend beyond its tail. Kortright's book has excellent colored pictures for identification.

The Fulvous Tree Duck nests in marshy areas in Mexico, Southern California, and near the Texas and Louisiana coasts. After the nesting season some of these ducks wander along the Gulf Coast, and a few occasionally show up on the Atlantic Coast. A few years ago Mrs. Maxie Swindell and I saw a pair of them at a distance on Cove Lake in Campbell County, immediately after a disastrous hurricane on the Louisiana coast. Cove Lake is about 15 miles northwest of Norris Dam. To my knowledge these are the only records of this duck in Tennessee.

MRS. FRANCES OLSON, 120 West Norris Road, Norris, Tennessee.

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THE PRESIDENT'S MESSAGE

Having sent "Greetings" to each of you by way of a personal **Newsletter** to be read in the Chapters, I shall take this opportunity to urge you to make plans now to attend our State meeting, 6, 7, 8 May, at Cumberland Mountain State Park. The Knoxville Chapter is looking forward to hosting our State Society at this beautiful park. We remember most pleasantly our last State Meeting at Cumberland Mountain Park when the Nashville Chapter was our host. The close-by Catoosa Wildlife Refuge also offers exciting opportunities for field observations. It was here, at the aforementioned meeting, many of us observed for the first time the Red-cockaded Woodpecker at its nesting site. By having the meeting a little more centrally located, the Knoxville Chapter hopes to encourage attendance of all our members in the State. Let me again suggest, particularly if you wish to stay in the Park, to make your reservations early.

A GOLD STAR goes to the Lebanon chapter for getting all their 1966 dues paid to our Treasurer early in November 1965. I hope all the local Treasurers will have all chapter dues to Mr. Wilmeth by the last of January, as this will enable him to give T. O. S. a more complete financial picture in his annual report. Delinquent members will not be entitled to receive the June 1966 issue of THE MIGRANT.

All local chapters which are guided by the state constitution are reminded that elections should be held so that newly elected officers can take office on 1 May. (Article V, Section I).

Any and every member who agrees to accept an office for the State organization should be willing to work for its improvement. We need working members on the Board, including all Directors from the local Chapters. There is much to be done and each will be given a job.

Best wishes to each of you for the year 1966.

KAY GARLINGHOUSE, 2012 Cedar Drive, Knoxville 37918.

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PREPARATION OF COPY FOR PUBLICATION

Most articles published in THE MIGRANT are written by T. O. S. members and comprise their major contribution toward carrying out the Society's purposes. The Editor, like other officers, receives no remuneration for the considerable work he does so the proper preparation of copy will help toward reducing his work. All manuscript should be typed on one side of 8½x11 paper, double spaced, and with good margins. Provide a concise, meaningful title and, where needed, subtitles within the text. Footnotes are not used. Bibliography, when used, should be brief. Examine past issues of THE MIGRANT and follow the style there used, noting that "main articles" and Round Table items are set up differently. Acceptable for inclusion are articles describing the habits of birds as noted from original observations in Tennessee or adjacent areas. Reports on occurrence of unusual species should give full data on the observation so that the record may be evaluated. The value of this publication depends upon the correctness of what it presents so accuracy of statement and identification are obvious requirements. In addition to such articles, are reports on our regularly scheduled projects, such as Spring Migration, Spring Field Counts, Breeding Bird Counts, Hawk Migration, and the Christmas Census. Each of these are reported upon by duly appointed leaders and it is their duty to see that questionable records are eliminated.

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VOL. 37 MARCH 1966 NO. 1

ANNUAL AUTUMN HAWK COUNT 1965

By THOMAS W. FINUCANE

In September, 1965, we counted 15,600 Broad-winged Hawks, 43% above our old record made in 1959. Total for the two Clinch Mt. stations was 12,000: Mendota Lookout, 8000; Rogersville Lookout, 4000, new records for both. The Elder Mt. count was 2382, surpassed only in 1960 and 1961. The halfway point was reached at 3:00 p.m., 19 Sept. More than 99% of the count was made between 11 and 29 Sept. About 95% of the T.O.S. Broad-winged Hawk count normally occurs in this interval.

We have no observation station which, like Hawk Mt., Pa., and Montclair, N. J., is manned all day every day during the hawk-migration season, or the season for any species. During Broadwing migration, however, we have usually had one or two stations, like Elder Mt. and Mendota, covered enough of the time to give assurance that the fluctuations in our seasons' totals are significantly related to the actual fluctuations in the size of migrations from year to year. The Mendota lookout is active all day Saturday, Sunday, and Monday during Broadwing migration, except in adverse weather. If the weather is bad on Monday, we get a count on Tuesday. To supplement these three days we make spot checks on other days when conditions are favorable.

The hawk migration last September came in two waves, each lasting five days and together accounting for 96% of the total. The first wave was recorded through its entire course at the Mendota Fire Tower lookout, Friday, 17 Sept. to the following Tuesday. There had been rain Sunday and Monday, a count of only one hawk in 4¼ hrs. on Tuesday (Rolston), no observer on Wednesday, 78 Broadwings in 8 hrs. on Thursday (Coffey and Smith), and 439 in 5½ hrs. on Friday (Coffey and Quillan), which can be considered the first day of the first wave. The weekend count, including all stations, was 7000, about 60% of it on Sunday. The count on Monday at Mendota was 980 (Rolston) and finally, Tuesday's total of 439 in 8 hrs. (Finucane). There were no observers there Wednesday, but the count on Thursday was only 14 hawks in 6 hrs. On Friday it rained, and the count was zero (Coffey and Herndon). Wednesday was not important.

Next day, Saturday, 25 Sept., the second wave began. We recorded only the first two days. Saturday's flight was 1167, more than half at the Mendota lookout, and Sunday's was 3280, including 1321 at the Rogersville lookout and good numbers at four other stations. On the basis of our experience, we could predict high counts for several more days. The wave was still building up, Sunday, and the weather looked promising. But no one had time to spend in the field. I made a spot check Wednesday morning, however, and counted 314 in 4 hrs. Also a report came from Bob Quillan of an estimated 300 hawks spotted by chance over Piney Flats, south of Kingsport, on Tuesday. Further signs of Tuesday's migration were

Wednesday's early morning flights, rising out of the mist down range and disappearing into it again (before even an estimate of numbers could be made, from the Mendota lookout).

Counts were made every day between 13 and 28 Sept. by Adele and Gene West, furthermore, at Elder Mt., except 12, 13 and 23, 24 Sept., when we had two spells of bad weather. The Rogersville Kyles Ford Lookout was active only on weekends. The fact that two peaks in the Broadwing migration came on weekends led to three record counts at that station, three counts above the old record, 1084 Broadwings, reported by Richard Nevius, 21 Sept., 1957. On the other hand, it takes a record migration year to make three new records at a station where counts have been made for sixteen seasons.

Besides the Broad-winged hawks, 205 hawks of other species were identified, nearly all in September, 1.3% of the total. The average count of these hawks, 1959 to 1964 has been 173, or 2.5% of the 7000 Broad-winged Hawk average. The corresponding 1951-1958 data were 226, or 8% of a 2800 average. So on the basis of numbers the other hawks scored well in 1965, especially when practically all observing was done in September, but percentage-wise the Broadwing count was higher than ever.

We had two Bald Eagles and one Golden Eagle. On 23 Sept., a flight of Canada Geese was spotted crossing the Clinch Mt.

In other areas, there was a record day at Montclair, N. J., 3778 Broadwings, three days before our peak. Their season total for this species was 7740, and they had 1000 other hawks. Hawk Mt., Pa., had a total of 9318 broad-wings (about average), 3498 Sharp-shinned Hawks, 444 Ospreys, and 100 Goshawks. No huge counts of Broadwings (in 1961 more than 70,000 in one day at Hawk Cliff, Ont.) (1) were reported, from stations on the Great Lakes. In spite of the general decline in populations of hawks and eagles, fall migration counts are still high. The Broad-winged Hawk counts seem to be getting higher. The Sharpshin count at Hawk Mt. was the highest since 1955. Perhaps they knew it would be a cold winter. This reasoning also applies to Goshawks but not to Broadwings, which always winter in the tropics.

(1) AFN **16**: 28, 1962

NOTES

Observers on the Meadow Creek lookout spotted a large accipiter, 3 Oct., which they classified as unidentified, but as Richard Nevius suggested, it probably was a Goshawk. This probability became even greater when news of last fall's great Goshawk invasion appeared. (Audubon Field Notes: Vol. 20, No. 1, 1966).

Tom Odom made two watches at the Mendota station in November and reported that his six Red-tailed Hawks, 6 Nov., sailed past the fire-tower like Broadwings in September.

KEY TO REPORTERS

B—Bill Finucane; C—Wallace Coffey, Bristol; F—Finucane, Kingsport; H—Mrs. Overton; J—Joe Finucane; K—Mr. & Mrs. Carroll Hinkle, Mr. & Mrs. Richard Nevius, Greeneville; L—Dr. Herndon, Elizabethton; M—Mike Finucane; N—Nevius; O—Odom, Kingsport; P—Patric & Thos. Finucane; Q—Bob Quillen, Bristol; Qu—Mr. & Mrs. W. I. Quillen, Piney Flats; R—Holmes Rolston, Bristol; S—Eugene Scott, Nicklesville, Va.; Sp—Spees, Greeneville; T—Tommy Finucane; W—Gene and Adele West, Chattanooga; X—Mrs. Swindell; Z—Charlie Smith, Milligan.

1434 Watauga Street, Kingsport, Tenn.

HAWK OBSERVATIONS FALL OF 1965

Date	Obs.	h.	Station	Wind	Sky	Brdwg	Other	Uni
to 9/6	—	—	—	—	—	56	—	23
9/11	O	4	Rogervl	1-3 SE-SW	1	28	6	1
11	FT	6	Mendota	0 NE	2	140	2	2
two days of rain			—	—	5	—	—	—
9/14	W	—	Elder	—	—	89	1	—
14	R	4	Mendota	0-2 N	4	1	4	1
15	W	—	Elder	—	—	84	3	2
16	CZ	8	Mendota	2-5 E	4	78	17	3
17	CQ	6	Mendota	0-2 W	3	439	6	3
18	W	—	Elder	—	—	171	14	5
18	OT	8	Rogervl	1-2 S-E	1	1108	4	—
18	FJS	9	Mendota	0-2 SE	0	1165	4	3
19	W	—	Elder	—	—	120	5	7
19	OB	8	Rogervl	1-2 W	2	1476	3	1
19	TJ	6	Chm Top	1-2 NW-SE	3	153	6	—
19	FS	9	Mendota	0-1 E-S	1	3002	17	—
20	W	—	Elder	—	—	652	13	2
20	R	7	Mendota	0	1	980	8	3
21	W	—	Elder	—	—	61	3	—
21	H	5	Knoxvl	—	—	136	—	6
21	FF	8	Mendota	4-0 SE	1	439	8	2
22	W	—	Elder	—	—	17	1	—
23	QF	4	Mendota	3 S	4	14	—	—
24	CL	—	Mendota	—	5	—	—	—
25	W	—	Elder	—	—	372	3	8
25	OB	6	Rogervl	4-5 E-N	0	106	3	—
25	TJ	4	Chm Top	—	—	2	2	—
25	FDS	9	Mendota	4-6 N	0	687	18	2
26	W	—	Elder	—	—	689	3	1
26	X	—	Knoxvl	—	—	481	—	—
26	NT	8	Rogervl	0-5 SE-SW	3	1321	2	—
26	Sp	2	Camp Cr.	2-3 ENE	4	145	1	—
25	OSP	9	Mendota	0-6 SE-W	4	644	3	—
27	W	—	Elder	—	—	5	1	2
28	W	—	Elder	—	—	71	2	—
28	Qu	—	Piney F	0	0	300	—	—
29	F	4	Mendota	4-6 E-S	2	314	2	2
10/2	PF	8	Mendota	5-2 NE-NW	2	30	9	2
3	NK	6	Medo Cr	4-6 NW	0	—	13	9
3	MF	5	Mendota	6-8 S-W	3	7	12	6
11/6	O	4	Mendota	2-3 SE-SW	3	—	6	—
TOTALS		157				15,583	205	96

STATUS OF BEWICK'S WREN AND HOUSE WREN IN NASHVILLE

By Amelia R. Laskey

In 1965, four pairs of House Wrens *(Troglodytes aedon)* were found within a narrow area about 0.5 mile wide and 4 miles long, extending south-west from my home to the north-west edge of Percy Warner Park.

The first known nesting of this species in Nashville occurred at my home in the south-west section of the city in 1957 when a pair had two successful nests, with 4 young banded from the first and 6 from the second nest.

In 1958 and 1959 a male remained each year, sang until July, but failed to acquire a mate. However a pair nested at the home of Mrs. Harvil Hite (about 2 miles away) from 1958 through 1965. No additional nests were found until 1965. In addition to a pair nesting at the Hite home, a pair at my home, another pair occupied a nest-box at the J. P. Jones home about a half mile from mine and another pair was found by Alvin Vincent nesting in a tree cavity in May in Percy Warner Park. Each pair raised at least one successful brood.

These 1965 records apparently change the status of the House Wren from spring and fall migrant to nesting species in the Nashville area.

The noticeable decline in Bewick's Wren *(Thryomanes bewicki)* population in the past few years prompted a review of all of my records for both species with the object of determining if this change in status was due to a competitive replacement of Bewick's by House Wrens. The compiled records from my area do not substantiate any competition for the Bewick's by any other wren. The decline in Bewick's population started when House Wrens were not found except as spring and fall migrants.

I observed only one instance when individuals of both species were close together. Neither showed hostility. On 14 May, 1956 a singing House Wren began to carry nest material into a box; on 29 May a singing Bewick's Wren arrived and the House Wren disappeared. The Bewick's remained only 2 days. One had been nesting nearby at the home of Charles Hunt which he had trapped for me to band when nest-building on 10 March that year. On 30 May, Charles found the singing House Wren about 0.2 mile north-east at a nest-box where it remained until July without acquiring a mate. In January 1957, I retrapped the Bewick's Wren at my home, indicating that this individual was a permanent resident that year. Bewick's Wrens are not often retrapped after banding.

My conclusions on the status of the two species are based on tabulations of field, banding and nesting records of both species from 1931 through 1965 in an area from the environs of my home extending into Warner Parks. These data are summarized herewith.

BEWICK'S WREN

In the early years, Bewick's Wrens were found in every month of the year with an influx of singers noted in late February and March. At home from 1931 (when banding began) through 1949, I trapped 113 individuals (average 6 banded per year) and had records of 14 nestings. From 1950 through 1960, I trapped 10 (average 0.9 per year) and recorded 3 nestings. From 1961 thorugh 1965, none was banded and no nests found in my home area.

In 1964 I had only two occurrence dates at home, 22 April and 12 May. In 1965, again only two dates, 3 and 6 May.

SUMMARY OF BEWICK'S WREN NESTING RECORDS

1931-1949		1950-1959	1960-1965
Home	14	3	0
1938-1949			
Warner Parks	26	3	0
1937-1949			
Area between	12	2	0
Total	52	8	0*

In addition, I have a few scattered records: 1946 on McCrory Rd. and Charlotte Rd.; 1948 on Charlotte Rd.; 1954 and 1956 in East Nashville. Three nests were reported to me by others in recent years: one each for 1963, 1964 and 1965 which indicates that the Bewick's Wren is still a resident, but in much reduced numbers.

* The 1965 record by H. E. Parmer occurred in the area between my home and Percy Warner Park.

HOUSE WREN

At my home from 1932 through 1943, I have records for a House Wren in 6 of 12 years during spring or fall migration (**MIG. 27**:23-30), then none until 1954 and 1955, again as migrants. My earliest spring arrival date is 24 March 1959, departure in May; fall arrival in September, latest departure 20 October 1936.

Casualties of migrating House Wrens at television towers (1956-1964) occurred from nights of 27-28 September to 17-18 October—11 birds in 6 of the 9 years since collecting of tower casualties began.

In 1956 one or two singing males became summer residents without acquiring mates (**MIG. 27**:56). In 1957 the first known nests of one pair were found. Each year from 1958 through 1965 a pair nested at the home of Mrs. Harvil Hite, but none was found elsewhere. In 1965 four pairs were found nesting in an area of 0.5 mile wide and four miles long.

I have banded only 4 adult House Wrens and 16 nestlings (4, 6, 6) at my home from 1932 through 1965. Because the nests observed elsewhere were in boxes that could not be opened and one in a tree cavity that could not be examined I have data only on the 3 at my home. Two nests were in tiny compartments of an "apartment" type box, the other was in a box built for larger birds. In this second nest for the 1957 pair, 6 eggs were laid from 20-25 June; young hatched from early morning 7 July to noon 8 July; all left the nest before 6:00 a.m. 23 July at 15 and 16 days of age. The bulky nest contained over 800 twigs, longest 8 inches, 46 feathers and several small white cocoons.

At the Jones home in 1965, House Wrens also used a bluebird-type house. One side was removable but the nest material completely concealed the cavity so nestlings could not be counted or banded. The material was saved intact after the young left. Twigs had been placed on top of an old grassy nest, but I counted 922 twigs (longest 8 inches), a 6 inch strip of gold-edged cellophane, many feathers of a Tufted Titmouse, one Cardinal and one Blue Jay feather and a few small white cocoons. This nest was lined with grass and the box entrance was obstructed by twigs except a narrow slit at the top of the 1.5 inch hole.

DISCUSSION

Cause of the drastic decrease in Bewick's Wren population is obscure. There seems to be no evidence of it being dominated by either House or

SMITHSONIAN INSTITUTION MAY 3 1 19

Carolina Wrens, the latter a common permanent resident here. One year both species were interested in using our mail box. Although the Carolina Wren *(Thryothorus ludovicianus)* had eggs in her nest, the Bewick's built their nest against the side entrance of the Carolina nest, thus obscuring the eggs, resulting in the Carolina abandoning the site and the Bewick's using the mail box (MIG. 17:39-43).

Certainly there was not a shortage of nesting sites. There were as many available as in previous years.

The outstanding change has been in the urbanization of our home area, increased human population and activities which may have influenced Bewick's Wrens as well as many other species that have abandoned this area. Graybar Lane residences are on acreage lots and we still have our 4.5 acres with trees, shrubs, thickets, lawns, a wood pile and a brush pile, but the contiguous areas are now covered with closely-built subdivisions. Percy Warner Park has also undergone changes as most of the meadow land has been utilized for various sports resulting in much more human activity and a decreased avian population.

SUMMARY

My field, banding and nesting records from 1931 through 1965 indicate that the population of Bewick's Wrens had decreased in the south-western section of Nashville before the House Wren nested here. There was no indication that the scarcity in the latter years of this study of Bewick's Wrens was due to competition from House Wrens.

1521 Graybar Lane, Nashville, Tennessee 37215.

THE SEASON

NASHVILLE: Loons—Ducks: Horned Grebe: 2 Jan. (30) OHL (LOT, HEP), peak for the season; Green-winged Teal: 2 Jan. (3) OHL (LOT, HEP); Shoveler: 13 Jan. to date (1) BL (HEP); Ring-necked Duck: (10-20) all winter with a peak of (136) 19 Jan. BL (HEP); Canvasback: (3-30) BL most of winter with the peak 18 Feb. (HEP), and (38) RL 25 Jan. (MCW); Lesser Scaup: from (100) early Jan. to (350) late Feb. BL (HEP); Common Goldeneye: a few all winter BL, RL, (HEP, MCW); Red-breasted Merganser: 22 Feb. to date (1) BL (HEP), 14 days earliest ever. Only a few ducks reported on OHL all winter.

Hawks—Thrushes: Bald Eagle: (2) adults plus (2) unidentified DRR 9 Feb. (LOT et al); Marsh Hawk: no winter reports; American Coot: absent BL, average (110) OHL (LOT, HEP); Common Snipe: 12 Feb. (11 plus) BV (TOS group), rarely over a single here in winter; Ring-billed Gull: 9 Feb. (3000) NJ (LOT et al), less than (300) wintered OHL; Bonaparte's Gull: about (300) wintered again OHL, nearly all gone by 1 March, (LOT, HEP); Brown Thrasher: no wintering reports; Robin, almost absent, began returning about 15 Feb.

Warblers—Siskins: Palm Warbler: (1) netted CF (AFG) 4 Dec.; Myrtle Warbler: almost absent again this winter; Common Grackle: absent in the immediate area until about 15 Feb.; Evening Grosbeak: (1) 21 Dec. Hodgson home; Purple Finch: Unusually common at most feeders with over 700 banded at home by (ARL) and almost as many by (KAG); Pine Siskin: absent, although several fall records.

Sparrows—Junco: Scarce, as were all sparrows; Tree Sparrow: 9 Feb. (2) DRR (LOT et al); Chipping Sparrow: 2 and 3 Dec. a tailless immature, then 9 Dec. a mature bird, both at home (SB); Harris' Sparrow: (1) home (FM) during the entire period; White-throated Sparrow: very scarce except at feeders.

Locations: BL—Bush Lake, BV—Buena Vista Marsh, CF—Cleese Ferry, DRR—Duck River Refuge, the part south of Waverly, NJ—New Johnsonville Steam Plant, OHL—Old Hickory Lake, RL—Radnor Lake.

Observers: SB—Sue Bell, AFG—Albert F. Ganier, KAG—Katherine A. Goodpasture, ARL—Amelia R. Laskey, FM—Fanny Murphy, HEP—Henry E. Parmer, LOT—Lawrence O. Trabue, MCW—Mary C. Wood.

HENRY E. PARMER, 3800 Richland Ave., Nashville, Tenn. 37205

COOKEVILLE: Ducks—Woodpeckers: Wood Duck: 15 Jan. (1); 28 Feb. (1); 7 March (4) RA; Bald Eagle: one on 13, 20, 27 Feb. DHL; Red-headed Woodpecker: 13 Feb. (2) WGA (RH).

Nuthatches—Finches: White-breasted Nuthatch: 12 Feb. (1); Red-breasted Nuthatch: 15 Feb. (2) RA (RH); Bluebird: none in Dec. but present in Feb. RA (RH); Cedar Waxwing: flock (25) present eight days Feb. RA; Loggerhead Shrike: present all winter; Myrtle Warbler: a couple during late Feb. HP; Baltimore Oriole: one present 10 Jan. to 15 Feb. HP (TT); Evening Grosbeak: 25 Feb. (1) HP (EK); Purple Finch: abundant, possibly more than ever; since Jan.; 144 banded HP (RLD).

Locations: DHL—Dale Hollow Lake, HP—Home Place, RA—Rickman Area, WGA—Willow Grove Area.

Observers: RLD—Ralph L. Dunckel, CH—Caprice Haile, RH—Roy Hinds, WJ—William Jones, EK—Elizabeth Killefer, TT—Thelma Tinnon.

MARIE WHITE, 1218 Byrne Avenue, Cookeville, Tennessee 38501

CHATTANOOGA: Loon—Ducks: Common Loon: 5 Dec. (3) BTWP; 12 Dec. (1) CL; 13 Dec. (2) WR; 17 Dec. (4) WBL. Horned Grebe: One to four most of period; high count 13 Dec. (125) WR (KD, RTB). Pied-billed Grebe: One to three most of period; high count 13 Dec. (40). Great Blue Heron: 5 Dec. (7) WBL; 8 Dec. (2) CL; 12 Dec. (14) CL; 19 Dec. (2) CL; 24 Dec. (5) CL; 27 Dec. (32) CL; 30 Dec. (11) SB; 9 Jan. (3) SB; 13 Jan. (6) HI. Canada Goose: 8,000 apx. wintering population at HI, small groups scattered elsewhere. Snow Goose: 13 Dec. (1) (KD, RTB). Mallard: 250 to 300 being fed at HCP, high count 6 Jan. (475) HCP (JD). Black Duck: 5 Dec. (1) WBL, with varying numbers through period; high count 13 Dec. (375) WR. Gadwall: Regular till 30 Jan. in small numbers, none then till 27 Feb. (4); high count 27 Dec. (80) SB. Pintail: 5 Dec. (3) WBL; 8 Dec. (1) BTWP; 12 Dec. (1) BTWP; 13 Dec. (20) WR; 23 Jan. (1) AM; 26 Feb. (7) AM; 27 Feb. (36) WBL. Green-winged Teal: Regular in small numbers through period; high count 27 Dec. (11) and 5 Feb. (11). American Widgeon: 5 Dec. (13) WBL; 8 Dec. (6) BTWP; 12 Dec. (6) BTWP; 13 Dec. (63) WR; 20 Dec. (52) HBL; 27 Dec. (1) HCP; 9 Jan. (5) BTWP; 15 Jan. (6) AM; 20 Jan. (2) BTWP; 26 Feb. (7) AM. Shoveler: 5 Dec. (1) WBL (JD). Wood Duck: 16 Dec. (3) NCC; 19 Dec. (7) CL; 27 Feb. (5) WBL. Redhead: 5 Dec. (1) WBL. Ring-necked Duck: 8 Dec. (1) BTWP; 12 Dec. (31) BTWP; 13 Dec. (1) WR; 9 Jan. (1) BTWP. Canvasback: 13 Dec. (11) WR (KD, RTB). Greater Scaup: 16 Jan. (9) CL (JD), studied 30 minutes in good light, maximum 200 yds., with Lesser Scaup and 60x B&L scope. Lesser Scaup: Regular in varying numbers through period; high count 6 Feb. (163) BTWP. Common Goldeneye: Small group wintering BCD; unusual elsewhere; high count 20 Jan. (26) BCD (JD). Bufflehead: 5 Dec. (15) WBL; 13 Dec. (6) WR; 19 Dec. (1) BTWP; 9 Jan. (1) BTWP; 16 Jan. (2) BTWP; 6 Feb. (6) BTWP; 27 Feb. (2) WBL. Oldsquaw: 20 Jan. (1) BCD (JD, JG, DWKB). Hooded Merganser: Regular through period; high count 17 Dec. (103) HCP (JD). Common Merganser: 12 Dec. (2) BTWP (KD). Red-breasted Merganser: 5 Dec. (1) BTWP; 12 Dec. (2) BTWP; 23 Dec. (1) BTWP; 27 Dec. (4) BTWP.

Vultures—Gulls: Turkey Vultures: 5 Dec. (6) WBL. Black Vulture: 8 Dec. (1) SB. Sharp-shinned Hawk: 16 Dec. (1) NCC; 19 Dec. (1) WBL. Cooper's Hawk: 23 Dec. (1) BTWP. Red-tailed Hawk: Regular, high count 26 Feb. (4) AM. Red-shouldered Hawk: 13 Dec. (1) WR; 19 Dec. (2) BTWP; 23 Dec. (1) BTWP; 25 Dec. (2) MP; 9 Jan. (1) CL; 6 Feb. (1) BTWP. Bald Eagle: 5 Dec. (1) WBL; 13 Dec. (1) WR; 17 Dec. (1) WBL; 27 Dec. (1) BTWP. Marsh Hawk: One to three sporadically. American Coot: Regular, with large wintering population on HBL; high count 13 Dec. (5500) HBL (KD, RTB). Common Snipe: Regular; high count 9 Jan. (53) SB. Least Sandpiper: 23 Dec. (9); 27 Dec. (9); 29 Dec. (4); 9 Jan. (6); all at SB. Herring Gull: Regular in small numbers; high count 6 Feb. (56) HCP (JD). Ring-billed Gull: Regular; high count 6 Feb. (1590) HCP (JD). Bonaparte's Gull: 5 Dec. (1) WBL; 7 Jan. (1) BTWP; 20 Jan. (7) BTWP.

Flycatchers—Waxwings: Eastern Phoebe: 21 Dec. (1) NCCG; 26 Dec. (3) NCCG; 9 Jan. (1) MC. Horned Lark: 19 Dec. (23) MP (KD). Red-breasted Nuthatch: Regular in small numbers; high count 5 Dec. (7) BTWP. Winter Wren: 26 Dec. (1) NCCG; 27 Dec. (1) NCCG. Golden-crowned Kinglet: Regular; high count 12 Dec. (10) BTWP. Ruby-crowned Kinglet: One on most trips; high count 12 Dec. (4) BTWP. Water Pipit: 24 Dec. (4) SB; 27 Dec. (7) SB; 30 Dec. (58) SB (JD). Cedar Waxwing: Regular.

Warblers—Sparrows: Myrtle Warbler: Regular in small numbers. Pine Warbler: 12 Dec. (1) BTWP; 23 Dec. (1) BTWP; 24 Dec. (3) HCP; 27 Dec. (1) CL. Redwinged Blackbird: Regular; high count 20 Dec. (700) AM. Rusty Blackbird: Regular in small numbers. Common Grackle: Regular; high count 21 Dec. (750) H; decreasing thereafter. Brown-headed Cowbird: Sporadic; high count 8 Dec. (800) AM (KD). Evening Grosbeak: 10 Feb. (14) C (DCFD); 17 Feb. (2) D (CS); 19 Feb. (10) SM (G&AW); 27 Feb. (31) CG (JD, JG). Purple Finch: Regular in small numbers. Pine Siskin: Regular; high count 21 Dec. (75) NCCG; decreasing thereafter. Vesper Sparrow: 5 Dec. (3) AM; 12 Dec. (4) AM; 19 Dec. (3) MP; 21 Dec. (1) NCCG; 23 Jan. (1) AM. Chipping Sparrow: 5 Dec. (1) WBL; 8 Dec. (1) BTWP; 18 Dec. (2) BTWP; 23 Dec. (2) BTWP; 23 Jan. (1) AM; 6 Feb. (2) BTWP. Fox Sparrow: Regular in small numbers.

Locations: AM—Amnicola Marsh, BCD—Below Chickamauga Dam, BTWP—Booker T. Washington State Park, C—Collegedale, Tenn., CG—Cohutta, Georgia, CL—Chickamauga Lake (Harrison Bay Area), D—Dunlap, Tenn., HBL—Hales Bar Lake, HCP—Hamilton County Park, HI—Hiwassee Island, MP—Morse Pond, NCC—North Chickamauga Creek (Lower Part), NCCG—North Chickamauga Creek Gorge, SB—Savannah Bay, SB—Signal Mountain, Tenn., WBL—Watts Bar Lake, WR—Woods Reservoir.

Observers: RTB—Ralph T. Bullard, DWKB—Dr. Wilbur K. Butts, DCFD—Dr. C. F. Dean, JD—Jon DeVore, KD—Kenneth H. Dubke; JG—James Garrett, CS—Charles Sterchi, G&AW—Gene & Adele West.

JON E. DEVORE, 4922 Sarasota Drive, Hixson, Tennessee 37343

BRISTOL: Loons—Mergansers: Common Loon: 26 Dec. (1) SHL; Horned Grebe: 23 Dec. (1) SHL; 26 Dec. (2) CL, Va. Pied-billed Grebe: two or three during entire period. Great Blue Heron: one to six SHL during period. Mallard: 26 Dec. (13) SHL, Va. Black Duck: one to ten during Dec. and Jan. Canvasback: 26 Dec. (1) SHL, Va. Lesser Scaup: 26 Dec. (1) SHL, Va. Common Goldeneye: 26 Dec. (6) SHL, Va. Bufflehead: 26 Dec. (6) SHL; 27 Feb. (17) SHR. Oldsquaw: 26 Dec. (1—Tenn. 1—Va.) SHL (WC, CS, HW) our only record ever. Hooded Merganser: 26 Dec. (12) SHL, Va.; 4 Jan. (22) SHL, Va.

Vultures—Owls: Turkey Vulture: a few all winter; max. 26 Dec. (56). Black Vulture: 26 Dec. (96); 6 Feb. (11); 19 Feb. (2). Cooper's Hawk: 25 Dec. (1) SHL; 25 Jan. (1) SC Va. Bald Eagle: 26 Dec. (7) SHL (WC-CS). Sparrow Hawk: common and regular. Killdeer: 1 to 9 all period. Common Snipe: 26 Dec. (3) SMM. Herring Gull: 26 Dec. (1) SHL. Ring-billed Gull: max. 26 Dec. (25) SHL. Barn Owl: one found dead 28 Jan. BV (TM). Screech Owl: three records during period.

Woodpeckers—Warblers: Yellow-shafted Flicker: 1 to 7 during period. Red-bellied Woodpecker: 26 Dec. (6); 26 Feb. (1). Red-headed Woodpecker: 28 Jan. (1); 23 Feb. (1). Yellow-bellied Sapsucker: 19 Dec. (1); 26 Dec. (4); 16 Feb. (1). Hairy Woodpecker: 26 Dec. (1); 19 Feb. (1). Horned Lark: a few regular during period. Blue Jay: regular, with max. 26 Dec. (99). White-breasted Nuthatch: 26 Dec. (10); 5 Feb. (1); 23 Feb. (1). Brown Creeper: regular, 2 to 5 birds. Winter Wren: 26 Dec. (3); 4 Jan. (2). Brown Thrasher: 4 Feb. (1). Robin: numbers increasing steadily since 4 Jan. with max. 18 Feb. (250). Bluebird: 2 or 3 regular all winter. Golden-crowned Kinglet: 26 Dec. (4); 4 Jan. (6). Cedar Waxwing: small flocks throughout period. Loggerhead Shrike: a few each trip during winter. Myrtle Warbler: 26 Dec. (5); 21 Jan. (1); 19 Feb. (15).

Blackbirds—Sparrows: Redwinged Blackbird: 26 Dec. (4) SMM. Common Grackle: 1 or 2 until 6 Feb. (250); 19 Feb. (350). Brown-headed Cowbird: 26 Dec. (25); 6 Feb. (50). Evening Grosbeaks: a few at various feeders; max. 25 Feb. (50); 4 Feb. (1) SCVa. Purple Finch: common and abundant; 270+ banded (WC) during Jan.-Feb. Pine Siskins: 19 Dec. (4) SHL; hundreds reported killed by cars in road at BR in late Jan. snow. Rufous-sided Towhee: 1 to 8 all period. White-crowned Sparrow: 26 Dec. (5); 5 Feb. (1). Fox Sparrow: 26 Dec. (1).

Locations: BR—Backbone Rock, Johnson Co., Tenn., BV—near Bristol, Va., CL, Va.—Clear Creek Reservoir, Washington Co., Va., SC, Va.—Scott Co., Va., SHL—South Holston Lake, Tenn., SHL, Va.—South Holston Lake, Virginia, SHR—South Holston River below lake, SMM—Stone Mill Marsh, Abingdon, Va.

Observers: Judith Abbott, Fletcher Bingham, WC—Wallace Coffey, H. C. Epperson, Mrs. L. M. Faucette, Harvey Hawk, Tim Hawk, TM—Tim Miller, David McPeak, H. W. Nunley, Bob Quillen, CS—Charles Smith, Mrs. W. H. Treadwell, Jr., Mrs. Jane Whitlow, HW—Hank Woodward.

WALLACE COFFEY, 508 Spruce Street, Bristol, Tenn. 37622.

ELIZABETHTON: Loons—Ducks: Common Loon: present in small numbers on BL all winter. Horned Grebe: absent during Dec., first 8 Jan. (1), max. 6 Feb. (10). Pied-billed Grebe: present in small numbers throughout period. Great Blue Heron: none after 1 Jan. until 12 Feb. (15 Max.). Mallard: not reported in Dec., max. 22 Jan. (165). Black Duck: present during entire period, max. 6 Feb. (205). Gadwall: a few reports during period, max. 20 Feb. (20) PHL. American Widgeon: absent Dec. and first half of Jan., max 27 Feb. (36). Pintail: only 22 Jan. (1) and 20 Feb. (6). Redhead: two records, 6 Feb. (11) and 27 Feb. (2). Ring-necked Duck: absent during Dec., max 20 Feb. (33). Canvasback: present most of period, max. 18 Dec. (30). Lesser Scaup: present all period, max. 27 Feb. (133). Common Goldeneye: present all period, max. 22 Jan. (410). Bufflehead: not observed during Dec., max 12 Feb. (20) PHL. White-winged Scoter: 6 Feb. (2). BL (CRS). Hooded Merganser: first 8 Jan. then none until 12 Feb. (3), then in small numbers.

Hawks—Owls: Turkey Vulture: a pair 19 Feb. VF (LRH) unusual in Carter County in winter. Bald Eagle: 8 Jan. (1 ad.) BL (LRH et al). American Coot: absent until 6 Feb. (20) BL, present remainder of period. Am. Woodcock: 26 Feb. (3) E (FWB). Common Snipe: first 21 Feb. (1) MC (CRS). Dunlin: 8 Jan. (3) and 12 Feb. (5) BL (CRS et al), very unusual winter records.

Goatsuckers — Starlings: Eastern Phoebe: only two records, 20 Dec. (1) and 11 Jan. (1). Horned Lark: very scarce, 1 Dec. (5); 20 Feb. (1). Red-breasted Nuthatch: numerous reports during Dec. reduced numbers thereafter. Brown Creepers: 1 Jan. (1); 23 Jan. (1). Winter Wren: 1 Jan. (2); 2 Jan. (3); 23 Jan. (1). Bewick's Wren: first 12 Feb. (1) PHL (CRS et al). Brown Thrasher: 2 Jan. (1) E (JCB). 13 Jan. (1) JC (Dawitt fide MD). Hermit Thrush: 6 Feb. (1) only record. Starling: estimated 50,000 at winter roost H (LRH).

Warblers — Sparrows: Myrtle Warbler: present in small numbers throughout period. Redwinged Blackbird: 5 Dec. (2); 5 Feb. (1); first flock 22 Feb. (50) JC (GD). Brewer's Blackbird: 5 Dec. (2) H (LRH, CRS) near blackbird roost; 6 Feb. (3). Common Grackle: small numbers at blackbird roost H throughout period. Regularly observed in small flocks after 15 Jan. Brown-headed Cowbird: 5 Dec. (1) and 3 Feb. (1). Evening Grosbeak: present during entire period at high elevation RM (FWB); at lower elevation after mid-Jan. Max. 27 Feb. (35). Purple Finch: common after 29 Dec. visited many feeders during almost a month of continuous snow. Pine Siskin: abundant during entire period at high altitude first part of period then in reduced numbers the latter part of period. Red Crossbill: several records through mid-Jan. White-winged Crossbill: present at high altitude throughout the period. Max. number 11 Dec. (21) RM (FWB). Fox Sparrow: only two records 23 Jan. (1) and 11 Feb. (1).

Locations: BL—Boone Lake, H—Hampton, J.C.—Johnson City, MC—Milligan College, PHL—Patrick Henry Lake, RM—Roan Mountain, VF—Valley Forge.

Observers: FWB—Fred W. Behrend, JCB—J. C. Browning, MD—Mrs. Harold Dillenbeck, GD—Mrs. George Dove, LRH—Lee R. Herndon, CRS—Charles R. Smith.

LEE R. HERNDON, Route 6, Elizabethton.

ROUND TABLE NOTES

COMMON REDPOLL IN GSMNP.—A Common Redpoll *(Acanthus flammea)* was recorded for the first time in Great Smoky Mountains National Park on 14 December, 1965. I observed a single individual from about 15-20 feet as it fed with a flock of 200-250 Pine Siskins *(Spinus pinus)* on a patch of bare soil at Sugarlands Visitor Center, two miles south of Gatlinburg.

Although the bird was not particularly noticeable or obviously different from the Pine Siskins, the crimson forehead and black chin were clearly seen once the bird was spotted. This individual lacked any rose color on the underparts, indicating it was probably either an adult female or a first-year male. The entire flock flew away and returned to the same feeding area several times within a period of about 10-15 minutes, and on each occasion the redpoll could be distinguished from the other birds. In addition to myself, five other people saw the bird.

On the Christmas Census in Great Smoky Mountains National Park on 2 January 1966, Miss Mary Enloe observed five Common Redpolls together at one time and two individuals together a short while later (possibly two of the original five). All the birds were seen in the Sugarlands area in the vicinity of U. S. 441, approximately two miles south of Sugarlands Visitor Center. They were attracted to the loud squeaking of Miss Enloe's Audubon Bird Call and in all cases either the black chin or crimson forehead, or both, were observed. All lacked rosy underparts. Call notes given by these birds were noticeably different from any notes characteristic of the usual winter residents with which Miss Enloe is quite familiar.

Mr. Albert Ganier and Dr. Lee Herndon have informed me that there are only three references to Common Redpoll observation in THE MIGRANT, two of which refer to the same observation. In THE MIGRANT 1934, **5**:14 and 1936, **7**:17, Tyler and Lyle refer to an observation in Johnson City; however, no date or other details were given and the record was accepted only tentatively. In THE MIGRANT 1950, **21**:79 a redpoll was reported by Irvine on the Greeneville Christmas Census; however, it too was accepted only tentatively. Therefore, in addition to being the first record for Great Smoky Mountains National Park, this report appears to be the first detailed account of a Common Redpoll observation in Tennessee.

DONALD H. DE FOE, Great Smoky Mountains National Park, Gatlinburg.

VIRGINIA RAIL AT ARROW LAKE IN JANUARY: On Saturday, 29 January, while my wife and I were walking thru the snow in the marsh above Arrow Lake to our winter bird feeder, Cleo noticed a small bird close to a running brook coming from under the frozen marsh above. This bird flew only a short distance and we were able to identify it from as close as six feet as a Virginia Rail. It spent most of its time upon the frozen ice near the Cattails and when showered with cracked corn it did not startle but immediately began eating vigorously. The Virginia Rail has been seen here before in March, September, and early October but so far as I know this is the only winter record. I believe there have been only five sightings in the last five years.

GEORGE R. MAYFIELD, JR., Maury County Hospital, Columbia, Tenn.

BLACK BRANT AT HIWASSEE ISLAND.—While participating in a field trip 31 October 1965 with the Knoxville Chapter, the authors identified a small goose that appeared to be a Black Brant *(Branta nigricans)*. At about 2:15 PM, under excellent light conditions, a small goose appeared to our left flying away from us. The bird flew about one hundred yards then reversed its course and headed back toward us till it was some forty yards away, then it changed course again and turned its side to us. As the bird turned each time we received a different view of the rump, head, upper and under parts. The head, chest and breast all appeared black. The under tail coverts were white, which contrasted sharply with the dark of the breast. The white collar was visible although faint.

The black chest and very dark breast of the bird observed is a distinguishing characteristic that separates this species *(B. nigricans)* from the Brant *(Branta bernicla)*. This was substantiated in F. H. Kortright's **The Ducks, Geese, and Swans of North America,** who states: "The entire body appears very dark, relieved by the white under tail-coverts . . .". Kortright further says of the Black Brant, "The white collar is noticeable but not conspicuous . . ."; this too concurs with our observations. **A Natural History of American Birds of Eastern and Central North America** (E. H. Forbush, Revised & Abridged by J. B. May) was consulted and our observations agreed in color pattern and also in flight characteristic, which is rather hurried with fast wing beats, generally close to the water. While the bird was under observation it never rose more than thirty to thirty-five yards from the water.

The observations were made with 10x50 and 7x35 binoculars.

JON DEVORE, 4922 Sarasota Drive, Hixon, Tennessee and
KENNETH H. DUBKE, 3302 Navajo Drive, Chattanooga, Tennessee.

BLACKBIRD ROOSTS IN SOUTH CENTRAL TENNESSEE: Several large Blackbird roosts have been found in South Central Middle Tennessee and one has been studied in more detail. This one is in Lewisburg, Tennessee, where it has been located for three straight years about two miles south of the courthouse. The roost is in numerous small cedars with some larger deciduous trees overhead. It surely numbers in the range of one million birds. Starlings predominate as in years past but sizable numbers of Redwinged Blackbirds, Grackles, and Rusty Blackbirds are present. Smaller numbers of Robins, and Cowbirds and rarely a Brewer's Blackbird are found there.

Large similar roosts have also been found by following the birds with the airplane in Adamsville, Tennessee just west of Savannah and also in McMinnville, Tennessee. The roost in Adamsville is about two miles west of town in a cedar thicket, and the roost in McMinnville is on the eastern edge of town about two miles from the courthouse. I am told that another very large roost is present in the Athens, Alabama area and that many birds from the southern fringe of Tennessee fly south to this roost in the evenings. In each of the three Tennessee roosts, it is known that the birds fly as far as forty-five or fifty miles from feeding fields back to the roost in the evening because they have been followed that far with the plane.

GEORGE R. MAYFIELD, JR., Maury County Hospital, Columbia, Tenn.

WATTS BAR LAKE OSPREYS' NESTING EFFORTS FAIL.—Two years ago I wrote of several attempts by a pair of Ospreys to nest on Watts Bar Lake, usually on top of a navigation marker in the Euchee area about six miles above the dam. (THE MIGRANT, 34, 60-62, 1963.) The Ospreys, the only pair known to be nesting in East Tennessee, have built nests in the area each year since, but they are not believed to have produced any young.

Last year on 4 May the pair was discovered working on a nest much farther upstream on a marker in the White Creek area. But by 30 May that nest had been abandoned and a pair, presumably the same Ospreys, had built a new nest on the Euchee marker. On 4 June Kenneth Dubke made close-up photographs of the large nest and, by climbing the piling, found one egg in the nest. In the following weeks observers failed to see any sign of young being in the nest, and in mid-July Mr. and Mrs. Woodford Spencer of Oak Ridge allowed their children to climb the piling. The nest was empty. Either too much boat traffic on the lake or too much DDT in the bodies of the birds could have been responsible.

This year the nest was discovered on 18 April in the White Creek area in the top of a tall deciduous tree near the shore but far enough away for the birds not to be disturbed by speed boats on the lake. James Campbell and I, as guests of Charles Cole of Rockwood, visited the area 12 May and observed the nest, which by then was almost hidden from view by leaves. The female, with only her head visible over the rim of the nest, watched us but at no time became alarmed. The male, perched atop a dead tree near the nest, retired to a perch a little farther away.

Neither of us was able to visit the area again but soon afterward Mr. and Mrs. Spencer, who spend weekends on the lake, reported that they no longer saw the Ospreys about the nest. Near the end of May the Spencers were accompanied by Dubke who attempted to climb a nearby tree and look down into the nest but was not successful.

During the last weekend of July the Spencers discovered the Ospreys back in the Euchee area with another nest on the marker there which the birds used as a sort of home base for their fishing activities. About the same time they began seeing a third Osprey in the White Creek area. This raised the question of whether the pair could have produced one young Osprey after all.

It seems a little too much to hope for. According to Bent, "Throughout the summer the young Ospreys associate with their parents, playing with them in flying exercises, following them to fishing ground. . . ." The third Osprey's remaining alone does not sound like the behavior of a young bird. When we consider reports of nesting failures in other areas it seems reasonable to assume that the Watts Bar Ospreys have been made sterile by DDT and other chlorinated hydrocarbons.

J. B. OWEN, 2930 North Hills Blvd., Knoxville, Tenn.

WOODCOCK NESTS, HARDIN COUNTY.—The Woodcock courtship flight has been observed here each year for the past eight years, always in the same location, a three acre clearing on the end of a small ridge, containing small fruit trees and a few utility buildings. The nearest water is at a spring and small stream 1,000 feet away.

The flights take place nearly every night in March, beginning about thirty minutes after sundown and usually continuing for about an hour, then beginning shortly after sunrise and continuing for about ten minutes. The bird begins his performance standing at the edge of the clearing emitting a "bzzzt" about once each three seconds for perhaps one minute. He then flies off in a 500 foot circle, close to the ground at first, but rising during the course of five or six revolutions to a height of 150 feet or more. He ends his flight with a dive that we have not yet been able to follow with lights; and unless we have approached closer than 30 feet he lands at the spot where he first began singing, there to begin singing again.

We have never searched this location for the nest, for fear of disturbing the bird and losing this most interesting entertainment, but in mid April, 1964, we found a nest 3,000 feet away, in a small grove of pines, 50 feet from a small creek. Egg shells were still in the nest, and the four young were all within a few feet of the nest. The next day we returned and photographed the young.

On 2 April, 1965, we found another nest, with four eggs. This was 500 feet from the first nest site, in a thicket of low brush and gum saplings, 100 feet from another small stream. During the following week a parent was sitting on the nest every time it was observed, and on 10 April the nest contained only empty shells. Neither young nor adults could be found at that time, but there was no evidence of any disturbance at the nest.

DAVID E. PATTERSON, Olive Hill, Tennessee.

WARBLER NOTES FROM NATCHEZ TRACE S. P. AND FOREST.— I first visited Natchez Trace State Park and Forest on 7-8 June, 1944 (THE MIGRANT XV(**2**):25-27). Mrs. Coffey and I have returned almost annually in summer, except in recent years. Comparative comments on five summering warbler species are offered. Worm-eating Warbler—One was seen 8 June, 1944, in a ravine near the cabin area. We have checked this ravine on every trip. On 12 July 1953, Mrs. Coffey and I saw two adults feeding 3 immatures, flying fairly well, in this ravine. On 4 June 1965 we heard and saw a singer, 2.1 miles north of the Brown's Lake turn-off, or 3 miles south of the other site. At the same time and place we saw a singing Swainson's Warbler, our first for the Forest. The location seemed unusual—a ravine-like slope with mixed pine and hardwood, and vines, especially a very heavy covering of Kudzu on ground and trees, in many areas. No cane. — Two single Blue-winged Warblers were recorded in 1944 but none has been found in summer since then.

The larger part of the pine plantings here was in 1938. Since no Pine Warblers were found in 1944, we have been on the lookout for the species to move into the Forest. Our first were two singles, 28 May, 1950, near Cub Lake. Only 2 or 3 noted subsequently, then, on 27 May 1956, we found singles,—2 on the Wildersville road, and 4, in the cabin area and south. About the same thru 1963. On 24 June 1965 we had this species at 3 points, north (from Cub Lake) to Maple Lake, and at 10 points south to that entrance. At one point flying immatures were being fed.

I had three summer records of the Ovenbird (one being a nest reported by Newton Hanson) for Mississippi before I found the species in West Tennessee. On 26 May 1956 we heard one a mile north of the Brown Lake turn-off. 19 May 1963 records of 4, north of Cub Lake, may have been transients. On 24 June 1965 I had two singles, Cub Lake north to Maple Lake; south, we heard two singers at one area, not far from the Brown Lake turn-off.—Of the five species, only the Pine Warbler seems to be moving in.

BEN B. COFFEY, JR., 672 No. Belvedere, Memphis 7, Tenn.

RED PHALAROPE NEAR TULLAHOMA.—On Saturday, 4 December, a Red Phalarope in winter plumage was found swimming near the south bank of Wood's Reservoir in the area of the bridge. It was turning around and around as it pecked at the water with its darkish bill. The head was very white except for the characteristic black pattern about the eyes. Well-down on the back of its head was black and this joined the smooth grey on the back; two indistinct wing bars were seen.

The day was sunny but was cold and windy. The phalarope did not appear to notice anyone observing it (about 20 feet distance) or that noisy motor boats were in the area. At the same time coots, Lesser Scaups, Horned Grebe and Common Loons were on the reservoir.

There have been only a few of these maritime Red Phalarope reported in Tennessee. One was found in the Nashville area by Mr. Henry Parmer, on 24 September, 1964 on Bush Lake.

MRS. W. L. McCRARY, Woodbury, Tennessee.
MARY WOOD, 2612 Barton Ave., Nashville, Tennessee.

CATTLE EGRET IN OVERTON COUNTY.—On 15 May 1965 a light colored bird was seen on and/or following black cattle on a farm in Hatches Valley, fifteen miles north of Livingston, Tenn. The cattle unaccustomed to such intruders were disturbed almost to the point of stampeding. This bird was identified by the birder of Overton County as a Cattle Egret *(Bubulcus ibis)*. All other records of this species have come from Dyer, Greene, Hamilton and Maury Counties.

P. L. HOLLISTER, Box 8A Tenn. Tech., Cookeville, Tenn. 38501.

SANDHILL CRANE NEAR CHATTANOOGA IN AUGUST.—In the course of regular field work at the Savannah Bay area of Chickamauga Lake the writer observed a Sandhill Crane *(Grus canadensis)* on 1 August 1965. As August records of this species are practically nonexistent outside its summering range (Walkinshaw, **Wilson Bulletin: 72,** 358-384) it is deemed desirable to present more detail on this observation.

It was clear weather at approximately 11:30 AM, when the author arrived on the slight hill overlooking the broad expanse of shallow water, mud flats, and marshy area with low growing shrubs on the upper reaches of Savannah Bay when through the 12x35 binoculars it was noted a number of large wading birds a half mile distance. In order to secure a better vantage point for their identification it was decided to walk through a woods that bordered the area. By doing this and taking advantage of the many cedars growing in the area it was possible to get within one hundred yards of the feeding unsuspecting birds. Upon examination it was noticed there were Common Egrets (3), Little Blue Herons (2), a Great Blue Heron and the Sandhill Crane. The Crane was studied for about three minutes with special notice made of its forehead with a pinkish cast. In an effort to become more comfortable and adjust the various paraphernalia being carried, the birds were startled and took to the air. In flight it was noticed the Crane flew with its neck out stretched, while the Great Blue Heron folded its back in the characteristic manner.

To give more substantiation to this record Mr. Kenneth Dubke was notified and returned to the area with the writer about 6:00 PM, but the bird could not be located.

JON DEVORE, 4922 Sarasota Drive, Hixon, Tennessee.

SANDHILL CRANES IN OVERTON COUNTY NEAR LIVINGSTON. —A sudden snow storm, temporarily blinding, forced a flock of Sandhill Cranes *(Grus canadensis)* to land on the farm of Mr. Herbert Qualls, a mile south of Livingston, Overton County, Tenn. These large birds, reports ranging from 40 to 53 individuals, were seen by several people and reported at the library of Monterey. On 15 March 1965 Roy Hinds identified the birds as Sandhill Cranes. Other records in recent years have shown them present in Anderson, Cumberland, Hamilton, Knox and Shelby Counties. (See THE MIGRANT for these and other records).

P. L. HOLLISTER, Box 8A Tenn. Tech., Cookeville, Tenn. 38501.

BOOK REVIEW

BIRDS OF THE NASHVILLE AREA.—by Henry E. Parmer. An annotated list of the birds of the Nashville Area including a map of the area with the principal birding areas indicated. Cover illustration by Alan R. Munro. 1966. 31 pp. $1.00 from the author, 3800 Richland Ave., Nashville, Tenn. 37205.

Since 1952 the author has studied the birds of the area intensively. In addition to his own records and notes he has had access to the files and records as well as having consulted with some of the most competent observers in the state. Some of these cover a period of fifty years, or the period covered by the existence of the Tennessee Ornithological Society. Much of the data compiled here was contributed by Albert F. Ganier, Katherine A. Goodpasture, Amelia R. Laskey, George R. Mayfield, Sr., Harry C. Monk and Charles M. Weise to mention only a few. Many of the more unusual records have been published in THE MIGRANT, Journal of the Tennessee Academy of Science, Game and Fish Division of the Tennessee Department of Conservation and the record book of the Nashville Chapter of TOS maintained since 1952. In recent years many extreme dates and unusual occurrences have been provided by airport ceilometers, TV-Tower casualties and by mist netting. The collection records of the curator of TOS, Mr. A. F. Ganier, have provided many specific specimens of species which might otherwise have remained on the hypothetical list.

The annotated list consists of 272 species and one hybrid. The status of each species is given. In the case of migrants the average arrival and departure dates are given with extreme dates and in most instances indicating the location and observer.

A tremendous amount of time has been devoted to this booklet and a strenuous effort has been made to insure its accuracy. The data have been scrutinized by several of the major contributors. Therefore, it should represent the status of ornithology in the Nashville area, although in abbreviated form and become the reference book to which future records may be added.

To the birders and prospective birders of the Nashville area it should be most helpful as a reference. It could also serve as a guide for what might be done over similar areas in or out of the state.

LEE R. HERNDON, Route 6, Elizabethton, Tenn. 37643.

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See suggestions at the bottom of this page.

THE TENNESSEE ORNITHOLOGICAL SOCIETY

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PREPARATION OF COPY FOR PUBLICATION

Most articles published in THE MIGRANT are written by T. O. S. members and comprise their major contribution toward carrying out the Society's purposes. The Editor, like other officers, receives no remuneration for the considerable work he does so the proper preparation of copy will help toward reducing his work. All manuscript should be typed on one side of 8½x11 paper, double spaced, and with good margins. Provide a concise, meaningful title and, where needed, subtitles within the text. Footnotes are not used. Bibliography, when used, should be brief. Examine past issues of THE MIGRANT and follow the style there used, noting that "main articles" and Round Table items are set up differently. Acceptable for inclusion are articles describing the habits of birds as noted from original observations in Tennessee or adjacent areas. Reports on occurrence of unusual species should give full data on the observation so that the record may be evaluated. The value of this publication depends upon the correctness of what it presents so accuracy of statement and identification are obvious requirements. In addition to such articles, are reports on our regularly scheduled projects, such as Spring Migration, Spring Field Counts, Breeding Bird Counts, Hawk Migration, and the Christmas Census. Each of these are reported upon by duly appointed leaders and it is their duty to see that questionable records are eliminated.

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VOL. 37 JUNE 1966 NO. 2

THE PRESIDENT'S MESSAGE

I am grateful to the members of T. O. S. for giving me the opportunity to continue as your president for one more year. I am also very happy that the Nominating Committee allowed me again the privilege of the invaluable support of an outstanding secretary and an excellent staff on the Executive Board.

Feeling even more deeply than my first year the obligation to lead T. O. S. in a greater "state-wide" program, I shall earnestly work toward that goal. Let's be "400 strong" at the West Tennessee meeting next Spring!

Here are some of the goals our Executive Board set before us for the coming year:

1. An Assistant Editor to help our much overworked Dr. Herndon.
2. Regional reporters for same.
3. More observers reporting to Dr. Herndon for THE MIGRANT.
4. An excellent Committee to direct us in Financial affairs.
5. Greater participation in the field of conservation.
6. Encouraging interested "Birders" to join with us.
7. We need those with executive ability to become more active.
8. More "inter-chapter" participation. With our improved expressways, let's get together often. I'd like to see two state meetings a year.
9. A need to "update" our Constitution.

In pursuing these goals, let each of us look inwardly to see if we are failing to help to the best of our ability.

1. Are you sending material somewhere else which should go into our publication THE MIGRANT?
2. Do you refrain from sending in field observations for fear they may be rejected? The Editor may have information which makes a report doubtful and all capable observers have had rejections for various reasons. These reports are kept on file and may be published later.
3. Are you refusing to work actively for T. O. S. because you feel a lack of special ornithological training? Executive ability and interest in the Society are the only requirements for many important jobs. We need the contribution each can make.

Let's think seriously about our opportunities to study, to report, to serve, to grow effectively, to know each other better. I shall be glad to hear from you.

KAY GARLINGHOUSE (MRS. HAROLD C.), 2012 Cedar Drive, Knoxville, 37918

SMITHSONIAN INSTITUTION SEP 9

ANNUAL MEETING, 1966

The annual meeting of the Tennessee Ornithological Society was held 6, 7 and 8 May at Cumberland Mountain State Park, Crossville, with the Knoxville Chapter as host. About 175 members and visitors were present.

Friday evening arrivals gathered in the Park's Recreation Hall to register, and to examine an excellent display of bird books and paintings. Even the decorations showed how feeders might be arranged in yards to the best advantage for birds and birders!

On Saturday and Sunday mornings, field trips were made to the Catoosa Wildlife Area, Black Mountain, and Lake Tansi.

As the Directors gathered in Cabin 16 at noon on Saturday for consideration of the Society's business, minutes of the 1965 meeting and the Treasurer's report for the year ending 30 April, 1966, were distributed. Mrs. H. C. Garlinghouse, the President, called the meeting to order. The minutes and the Treasurer's report were approved as printed, and the latter was filed for auditing. Mrs. E. M. West announced she still has arm badges for sale, at $1.25 each. James Campbell stated that the Membership Committee hopes to work through Chapter presidents to add new members, and that names of new members will be published in THE MIGRANT. The Newsletter will be discontinued for the present because of increased printing costs. Mrs. J. H. McWhorter asked that the Resolutions Committee's report be deferred to the General Meeting. Miss Jennie Riggs, Nominating Committee Chairman, presented the following slate of officers: President—Mrs. H. C. Garlinghouse; Vice-presidents, West—Mrs. Henry Dinkelspiel, Middle—Mrs. W. O. Collins, East—James M. Campbell; Treasurer—Miss Annella Creech; Secretary—Mrs. Thomas Swindell; Curator—Mr. Albert Ganier; Editor—Dr. Lee Herndon; Directors-at-Large, West—Mrs. Eugene Cypert, Middle—Mrs. Henry Waters, East—Dr. James T. Tanner.

A Summer Breeding Bird Survey was proposed as a statewide project by Mr. Ganier. Results of such a survey would provide valuable information on Tennessee's breeding bird population.

Appointment of Finance and Constitutional Committees was approved. The Hawk Count will be continued, with a somewhat condensed report in THE MIGRANT. The Editor of THE MIGRANT will select an Assistant Editor; and reporters from each Chapter will see that the Editor's copy-basket is filled before each deadline. On-the-spot volunteers for this important work were Mrs. West—Chattanooga, Dr. Paul Hollister—Upper Cumberland (Cookeville), Bill Searle, III—Knoxville, Eugene Cypert—Reelfoot (Tiptonville), John Conder and Dr. W. H. Blackburn—Kentucky Lake (Camden), Mrs. Henry Waters—Lebanon, and Charlie Smith—Elizabethton. There being no further business, the meeting was adjourned.

The Recreation Hall was crowded at 3:00 P.M. as the Paper Session got under way. Following the President's message of welcome, Mrs. E. E. Overton introduced the speakers. Dr. Joseph Howell explained the "Roadside Count", a nationwide project of the Patuxent Wildlife Research Center at Laurel, Maryland, under the direction of Chandler S. Robbins. In addition to a thorough briefing, Dr. Howell answered further questions from the floor. Mrs. F. C. Laskey shared with us some of her "Experiences in Bird Banding." There will undoubtedly be T. O. S. members striving to become licensed banders as a result of her informative and interesting account of activities at Blossomdell Bird Banding Station!

The President called the General Business Meeting to order at the conclusion of the Paper Session. She used for the first time, a gavel made for T. O. S. by her husband, Mr. Harold C. Garlinghouse. He used, appropriately, Tennessee marble, and inscribed on one end of the gavel, T. O. S., on the other, 1915. The President then presented the gavel to the Society, and Mrs. William Bell accepted it on behalf of the membership. Mrs. Garlinghouse reported the recommendations of the Directors. These were approved. John Conder, Chairman of the Bird Protection Committee, urged that each of us become a committee-of-one to build goodwill with sportswriters, hunting and fishing columnists, and the public in general.

At 6:30 the dining room and terrace were filled to capacity with hungry birders who enjoyed the delicious food provided by Mrs. William Collier and her Park staff. Afterward, in the Recreation Hall, the President spoke briefly, and asked for the report of the Resolutions Committee. Mrs. McWhorter read the following:

RESOLUTIONS

WHEREAS, the Tennessee Ornithological Society assembled at its fifty-first Annual Meeting 6, 7 and 8 May, 1966, at Cumberland Mountain State Park, and

Resolved, that the Society wishes to express its sincere appreciation: to Mr. Jim Campbell, President of the Knoxville Chapter, for his efficient planning of the arrangements for this meeting, and to Mrs. H. C. Garlinghouse, our State President, for her assistance to him;

To Mr. Torb Mengel and Miss Louise Nunnally, for publicity and advance information, and to Mrs. Lura James and Mr. and Mrs. Bill Searle, who assisted them;

To Mr. and Mrs. Kenneth Sanders for the attractive and interesting displays for the reception, and to Mrs. Frances Olson, Mrs. George Wood, and J. B. Owen who also served on this committee;

To Mr. and Mrs. Bill Williams and Mr. and Mrs. Leonard Broyles, for the delicious and abundant refreshments at the reception;

To Mr. and Mrs. Louis Smith, Miss Helen Lewis, and Mrs. Minnie Duncan, who so efficiently handled registration;

To Mrs. George McGown, Misses Julia Moore and Helen Lewis, and Robert Dunbar, for preparing name tags;

To Mr. and Mrs. Hershel Macon, for the attractive decorations at the reception and the banquet;

To Mrs. Holly Overton, for planning and executing an interesting and informative paper session, and to Mrs. Amelia Laskey and Dr. Joseph Howell, for participating;

To Dr. Jim Tanner, J. B. Owen, Paul Adams, and Jim Campbell, for their leadership on field trips;

To Mr. and Mrs. George Wood, for providing car stickers;

To Miss Susan Hoyle, for her assistance at the Business Meeting;

To Mr. and Mrs. Robert Monroe and Mr. and Mrs. Paul Pardue, Chairmen of Hospitality;

And resolved that Dr. Burt Monroe, Jr. be accorded our thanks and

(Continued on page 43).

THE SEASON

NASHVILLE—Loons - Bitterns: Common Loon: no reports. Horned Grebe: 2 Apr. (28) OHL (CRS, HEP) that were in 10-90% breeding plumage. Great Blue Heron: scarce: Green Heron: late and scarce. Little Blue Heron and Common Egret: absent. Black-crowned Night Heron: 23 April about (45) nest in Bordeaux Heronry. Yellow-crowned Night Heron: a few at BV, nesting status unknown. American Bittern: 13 Apr. (1) each home and HD, (HCM).

Geese-Ducks — Canada Geese: no reports except for a pair CL mid March thru 18 April (EE, MCW). Gadwall: scarce, with (6) 5 April BL (HEP), below normal during period. American Widgeon: scarce, with a late bird on 26 April, BL (HEP). Shoveler: fairly regular at BL with (12) on 15 Apr. (HEP). Wood Duck: nested again both TJ's and RL (HEP, MCW). Redhead: 5 Mar. (20) OHL dam (LOT, HEP). Ring-necked Duck: very few and left early. Canvasback. 9 Mar. (5) BL (HEP) were last seen. Lesser Scaup: Very few in April with the last being (4) 5 May BL (HEP). Bufflehead: Almost absent, but an unusual flock of (37) 12 April BL (HEP). Ruddy Duck: almost absent.

Hawks-Plovers: All hawks scarce. Sora Rail: one, 23 Apr. BV (JP). Purple Gallinule: our 5th record in 50 years, 23 Apr. (1) RL (MCW) stayed thru the 28th. (HEP, SB). American Coot: far below normal with the last (1) PWP pond (LOT) 21 May. Plovers: no reports other than the still scarce Killdeer.

Woodcock-Sandpipers — Woodcock: 23 Apr. and 28 May, (1) PWP pond (AV). Common Snipe: unreported. Spotted Sandpiper: an early arrival on 15 April to (5) 3 May, both BL (HEP). Solitary Sandpiper: 13 Apr. (5) HD (HCM). Greater Yellowlegs: late and scarce with the 1st. 20 Apr. (1) RR (LOT). Lesser Yellowlegs: late and few reported, including an unusual flock of (30) 10 Apr. (LF), and (17) 20 Apr. (LOT), both RR. Stilt Sandpiper: 20 April (1) RR (LOT). No other sandpipers reported.

Gulls-Flycatchers — Herring Gull: 21 Apr. (2) BL (HEP) last seen. Ring-billed Gull: scarce, and left BL area nearly two months early. Bonaparte's Gull: 8 Apr. (26) BL (HEP), most seemed in full breeding plumage. Black Tern: 18 May (1) OHL (SB) was the only tern reported. Black-billed Cuckoo: 24 Apr. (1) LH (HEP, HCM) was about a week early. All owls seemed scarce. Common Nighthawk: 20 Apr. (1) (HCM). Chimney Swift: 24 March (1) BL (HEP) ties earliest ever record. Ruby-throated Hummingbird: 20 April (1) banded TJ's (KAG). Red-headed Woodpecker: One nesting pair still active after digging their third hole, CP (HCM). Eastern Kingbird: 20 Apr. (1) PWP (ARL). Great Crested Flycatcher: 20 April (1) home (MCW). Wood Pewee: 23 Apr. (1) CP (HCM).

Swallows-Thrushes — It was mid April before much of a swallow migration occurred and it was far below normal. Early arrivals were a Tree Swallow (4) Barn Swallow (3) Cliff Swallow BL (HEP), on 24 March. Purple Martins were late with (1) 21 March BL (HEP) then but few until mid April. The last Red-breasted Nuthatch was (1) 20 April TJ's (KAG). Brown Creeper: 17 Apr. (1) home (HCM) was the last. House Wren: 19 April (1) home (HCM) and 25-27 April and 28 May, (1) home (ARL). The last Winter Wren was (1) BS (KAG). An early Bewick's Wren nest 17 April with (3) young about 10 days old (HEP). Catbird: 15 Apr. (1) home (KAG). Wood Thrush: 14 April (1) home (ARL). Last Hermit Thrush:

28 April (1) home (MCW). Swainson's Thrush: from 15 April (1) home (KAG) to 23 May (1) home (ARL). Gray-cheeked Thrush: scarce, with (1) home 18 April (SB). Veery, 3 & 16 May (2) each RL (MCW). Eastern Bluebird: (ARL) reports nests and an all time low in PWP.

Gnatcatchers-Vireos — Blue-gray Gnatcatchers: 1 April (1) BS (KAG). Kinglets: scare except for (25) Ruby-crowned Kinglets near home 13-15 April (HCM). Vireos: late, with White-eyed Vireo 16 April PWP (SB), Yellow-throated Vireo, 13 April (1) home (HCM), Red-eyed Vireo, 12 April (1) home (KAG), Philadelphia Vireo, (1) RL 14 May, (2 days latest ever) and Warbling Vireo, 20 April (1) CP (HCM). **Warblers** — Black-and-white Warbler, 9 April (1) each BS and TJ's (KAG). Prothonotary Warbler: 12 April (1) RL (MCW). Worm-eating Warbler: 20 April (1) each at home (MCW & SB). Blue-winged Warbler: 12 April (1) home (HCM). Tennessee Warbler: 20 April (1) PWP (MCW). Nashville Warbler: 16 April (1) home (HCM). Parula Warbler: 12 April (1) home (KAG). Yellow Warbler: 18 April (1) CP (HEP). Magnolia Warbler: late, with the last (1) home (KAG) 16 May. Myrtle Warbler: fairly common in migration with the last 13 May (1) home (HCM). Black-throated Green Warbler: 4 April (1) CP (HCM). Cerulean Warbler: 17 April (3) BS (KAG). Blackburnian Warbler: 16 April, (1) home (HCM), one day earliest ever. Yellow-throated Warbler: 1 April (1) SHV (KAG). Chestnut-sided Warbler: 23 April (1) home (ARL). Bay-breasted Warbler: scarce, with the latest 16 May (1) home (HCM). Blackpoll Warbler: 23 April (6) RL (MCW) with the latest 21 May (1) PWP (KAG). Prairie Warbler: 19 April (1) home (HCM). Palm Warbler: 18 April (1) CP (HCM). Ovenbird: only one reported, 22 May (1) home (HCM). Northern Waterthrush: 23 May (2) banded PWP (KAG), 8 days latest ever for spring. Louisiana Waterthrush: 12 March (1) BS (KAG), one day earliest ever. Kentucky Warbler: 19 April (2) PWP (MCW). Mourning Warbler: 1 June (1) found dead AMR (NB), identified (ARL). Yellowthroat: 20 April (3) RL (MCW). Yellow-breasted Chat: 20 April (1) home (MCW). Hooded Warbler: 21 April (3) home (KAG). Wilson's Warbler: 7 May (1) CP (HCM). American Redstart: 20 April (3) home (KAG).

Bobolink-Lark Bunting — Bobolink: 2 May (75 & 100) and 11 May (60), both SHV (MCW). Orchard Oriole: 17 April (1) home (HH). Baltimore Oriole: 22 April (1) home (CWF). Scarlet Tanager: 19 April (1) TJ's (KAG). Summer Tanager: 16 April (1) home (SB). Rose-breasted Grosbeak: 19 April (1) home (CWF). Blue Grosbeak: 23 April (3) CP (HCM) and for 5 consecutive days there by him. Indigo Bunting: 17 April (1) home (CWF). Dickcissel: very late with (10) 15 May (MCW). Evening Grosbeak: 10 April (3 plus) BS (KAG) our 3rd record for the 65-66 season. Purple Finch: probably the largest number ever here with well over 1200 banded. The last was (1) 24 April home (MCW). Pine Siskin: irregular, with the last being (5 plus) 22 March OCR (KAG). American Goldfinch: unusually large numbers in late April. Lark Bunting: One at a feeder in Woodbury from about 1-2 April until it was collected 22 April (AFG). See ROUND TABLE NOTES.

Sparrows — most were considerably below normal. Savannah Sparrow: last was 2 May (3) SHV (MCW). Vesper Sparrow: 20 March (6) SHV (KAG) and 3 April (15) BL (HEP). Slate-colored Junco: more than in winter, but still below normal. Last was 24 April (1) home (HCM). Chipping Sparrow: 7 March (1) home (KAG). Harris' Sparrow: The one that wintered at the home of (FM) was last seen 6 May. White-crowned Sparrow: scarce (1) CP 25 April - 7 and 12 May (HCM). White-throated Sparrow: scarce, the last 8 May (1) home (HCM). Fox Sparrow: last 7 April (1) home (CWF). Swamp Sparrow: last 20 April (1) TJ's (KAG).

Observers — SB—Sue Bell, NB—Norwood Bierly, EE—Erline Elmore, LF—Louis Farrell, CWF—Clara W. Fentress, AFG—Albert F. Ganier, KAG —Katherine A. Goodpasture, HH—Helen Hodgson, ARL—Amelia R. Laskey, HCM—Harry C. Monk, FM—Fanny Murphy, HEP—Henry E. Parmer, JP—Jimmy Parrish, CRS—Charles R. Smith, LOT—Lawrence O. Trabue, AV—Alvin Vincent, MCW—Mary C. Wood.

Locations. AMR—Abbott-Martin Road, BL—Bush Lake, BS—Basin Springs, BV—Buena Vista Marsh, CL—Coleman's Lake, CP—Centennial Park, HD—Hill Dam (Hillwood), LH—Love Hill, OCR—Otter Creek Road, OHL—Old Hickory Lake, PWP—Percy Warner Park, RL—Radnor Lake, RR—River Road (Sam's Creek), SHV—South Harpeth Valley, TJ's—Two Jays Sanctuary.

HENRY E. PARMER, 3800 Richland Ave., Nashville, Tenn. 37205.

COOKEVILLE: Vireos-Sparrows: Red-eyed Vireo: 5 May (1); Black-throated Blue Warbler: 5 May (1); Chestnut-sided Warbler: 5 May (1); Rose-breasted Grosbeak: 28 April (2); Lark Sparrow: 12 May (2); White-crowned Sparrow: 12 May (2).

Locations: HP—Home Place, RA—Rickman Area.

Observers: BC—Beulah Clark, CH—Caprice Haile, RH—Roy Hinds, JTM—J. T. Moore, TT—Thelma Tinnon.

MARIE WHITE—1218 Byrne Avenue, Cookeville, Tennessee 38501.

CHATTANOOGA—Loon-Ducks: Common Loon: 1 May (1) SB; Horned Grebe: 1 May (11) SB; Pied-billed Grebe: 10 March (1) AM, 12 March (2) HI, 15 March (1) BTWP, 20 March (2) BTWP; Great Blue Heron: 20 March (1) BTWP, 17 April (1) AM; Green Heron: 17 April (2) AM, 24 April (4) AM; Common Egret: 24 March (1) AM, 21 April (1) AM; Cattle Egret: 21 April (1) AM (JD); Black-crowned Night Heron: 1 May (1) SB, Yellow-crowned Night Heron: 24 April (2) AM; American Bittern: 17 April (1) AM; Canada Goose: Last departing flight 12 March (275) HI; Mallard: 10 March (10) AM to 17 April (2) AM, High count 15 March (225) BTWP; Black Duck: 10 March (25) AM to 24 April (2) AM, High count 18 March (36) AM; Gadwall: 10 March (3) AM, 12 March (15) HI, 18 March (6) AM, 20 March (4) BTWP, 24 March (2) AM; Pintail: 12 March (16) HI (JD); Green-winged Teal: 10 March (28) AM, 18 March (4) AM, 20 March (15) BTWP, 24 March (10) AM, 25 March (18) AM, 27 March (8) HCP; Blue-winged Teal: 12 March (6) HI to 24 April (33) AM, High count 1 April (46) AM; American Widgeon: 10 March (31) AM, 12 March (76) HI, 13 March (25) AM, 20 March (42) BTWP, 24 March (15) AM, 25 March (8) AM, 27 March (4) AM; Shoveler: 18 March (2) AM, 20 March (1) BTWP, 25 March (4) AM, 27 March (2) HCP, 1 April (2) AM, 23 April (3) AM; Wood Duck: Regular in small numbers, High count 18 March (8) AM; Redhead: 12 March (2) HI, 20 March (4) BTWP; Ring-necked Duck: 20 March (85) BTWP, 27 March (12) HCP; Lesser Scaup: 10 March (1) AM to 23 April (2) AM, High count 12 March (50) HI; Bufflehead: 20 March (20) BTWP; Ruddy Duck: 1 May (20) SB; Hooded Merganser: 20 March (8) BTWP; Common Merganser: 1 May (2) BCD; Red-breasted Merganser: 1 May (3) SB.

Vulture-Swallows: Turkey Vulture: 13 March (4) H, 15 March (2)

BTWP, 20 March (6) BTWP, 26 March (1) BC; Black Vulture: 1 May (1) SB; Cooper's Hawk: 26 March (1) BC; Sharp-shinned Hawk: 1 May (1) PP; Red-tailed Hawk: Regular in small numbers, High count 26 March (4) BC; Red-shouldered Hawk: 20 March (2) BTWP, 25 March (2) AM, 1 April (1) AM; Broad-winged Hawk: 9 April (1) SM, 23 April (2) AM; Marsh Hawk: 12 March (1) HI; Osprey: 1 May (1) CL; King Rail: 1 May (2) SB; Virginia Rail; 1 May (1) AM; Sora Rail: 17 April (8) AM, 24 April (12) AM; Purple Gallinule: 24 April (2) AM; Semipalmated Plover: 1 May (1) MB; American Coot: 10 March (1) AM to 24 April (4) AM, High count 27 March (86) AM; Common Snipe: 10 March (2) AM to 24 April (2) AM, High count 20 March (78) AM; Spotted Sandpiper: 1 May (19) SB; Solitary Sandpiper: 17 April (7) SB, 23 April (5) AM, 24 April (3) AM; Willet: 1 May (7) BCD; Greater Yellowlegs: 12 March (2) HI, 23 April (1) AM, 24 April (2) AM; Lesser Yellowlegs: 20 March (3) SB, 27 March (3) AM, 1 April (2) AM, 17 April (6) AM, 23 April (3) AM, 24 April (3) AM; Pectoral Sandpiper: 1 April (4) AM, 17 April (7) SB, 23 April (6) AM, 24 April (3) AM; Least Sandpiper: 20 March (10) SB, 23 April (5) AM; Herring Gull: 10 March (1) AM, 12 March (4) HI, 15 March (8) BTWP; Ring-billed Gull: 10 March (18) AM, 12 March (75) HI, 15 March (62) BTWP, 20 March (13) BTWP, 1 April (1) AM; Yellow-billed Cuckoo: First 16 April (1) H; Black-billed Cuckoo: First 1 May (1) RD (MN); Chuck-will's-widow: First 1 May (8) SB; Whip-poor-will: First 17 April (2) H; Common Nighthawk: First 21 April (1) RHS; Chimney Swift: First 2 April (3) SM; Ruby-throated Hummingbird: First 1 May (7) MB; Yellow-bellied Sapsucker: Last 1 May (2) CNMP; Eastern Kingbird: First 13 April (2) H; Tree Swallow: First 27 March (2) AM; Bank Swallow: First 17 April (4) SB; Rough-winged Swallow: First 25 March (8) AM; Barn Swallow: First 9 April (3) SM; Cliff Swallow: First 21 April (15) CD.

Nuthatches-Sparrows: Red-breasted Nuthatch: 15 March (6) BTWP; Long-billed Marsh Wren: 1 May (3) SB; Hermit Thrush: Last 1 May (2) H; Veery: 1 May (6) SC; Blue-gray Gnatcatcher: First 17 April (1) SB; Golden-crowned Kinglet: Last 9 April (1) SM; Ruby-crowned Kinglet: Last 1 May (1) B; White-eyed Vireo: First 22 April (1) ECS; Red-eyed Vireo: First 22 April (1) ECS; Warbling Vireo: 1 May (1) SB; Warblers: Refer to (1966) Spring Census which gives a good sample of species and relative numbers present; Bobolink: 1 May (40) RFG; Red-winged Blackbird: Regular, High count 10 March (300) AM; Orchard Oriole: 1 May (31) SB thru end of period; Baltimore Oriole: 1 May (14) SB; Rusty Blackbird: Regular in small numbers, High count 25 March (125) AM; Common Grackle: Regular, High count 18 March (150) AM; Scarlet Tanager: First 21 April (1) AM; Summer Tanager: First 11 March (1) SM; Rose-breasted Grosbeak: First 16 April (1) H; Blue Grosbeak: First 1 May (1) BOD; Indigo Bunting: First 22 April (1) ECS; Evening Grosbeak: 11 March (4) CG (JG), 1 May (7) SE (TR); Purple Finch: Last 1 May (22) SB; Pine Siskin: Last 9 May (12) SM; Vesper Sparrow: Last 1 May (2) SB; Bachman's Sparrow: 1 May (1) CNMP (MC); Slate-colored Junco: Last 1 May (3) SM.

Locations: AM—Amnicola Marsh, B—Brainerd, BC—Battle Creek, BCD—Below Chickamauga Dam, BOD—Bonny Oaks Drive, BTWP—Booker T. Washington Park, SD—Chickamauga Dam, CG—Cohutta, Georgia, CL—Chickamauga Lake, CNMP—Chickamauga National Military Park, ECS—Elsie Chapin Sanctuary, H—Hixson, HCP—Hamilton County Park, HI—Hiwassee Island, MB—Moccasin Bend, PP—Prairie Peninsula, RD—Riverside Drive, RFG—Rising Fawn, Georgia, RHS—Riverside High School, SB—

Savannah Bay, SC—Spring Creek, SE—St. Elmo, SM—Signal Mountain.

Observers: Jeff Albright, Bill Alford, Mr. and Mrs. T. S. Barr, Francis Barnwell, Benton Basham, Ross Brock, Ellen Cross, Maxine Crownover, Dr. C. F. Dean, Jon DeVore, Roy Evenson, James Garrett, Nat Halverson, Charles McCutchen, Harold and Mary Lou Meadors, Mable Norman, William Phillips, Theo Rogers, Veta Sliger, Charles Sterchi, Chuck Turner, Gene and Adele West.

JON E. DEVORE, 4922 Sarasota Drive, Hixson, Tennessee 37343.

BRISTOL: Herons-Owls: Green Heron: first 21 April (2); 15 May a colony of nests located which contained 11 — nests by 24 May SHD (WC-TH) all active with either eggs or young; Wood Duck: first 9 March (6) SHL, Va.; Lesser Scaup: 24 April (3); Bufflehead: 5 March (24) SHR; 24 April (3) SHD; Cooper's Hawk: 4 May (1); Red-tailed Hawk; 6 May (1) BCC (WC); Broad-winged Hawk: 25 April (1); Sparrow Hawk; 10 March (2); 27 May (2); American Woodcock: 7 May (1) SHD (WC); 22 May (1) SHD (WC-CS); Spotted Sandpiper: 18 May (1); Least Sandpiper: 18 May (2); Herring Gull: 16 March (1); Black-billed Cuckoo: first 5 May (1); Screech Owl: 6 March (1); 21 May (3); Great Horned Owl: one found dead 15 April SV (WC-CS-JS).

Goatsuckers-Swallows: Chuck-will's widow: 28 May (1) SHL (WC-CR) first record for lake area; Whip-poor-will: 8 May (10) first; Common Nighthawk: first 25 April (1); Chimney Swift: first 9 April (3); Redbellied Woodpecker: 7 May (1); Red-headed Woodpecker: 10 March (2); Hairy Woodpecker: different individuals on each of 5 May (1); 6 May (1); 7 May (1); Eastern Kingbird: first 24 April (1); Great Crested Flycatcher: first 6 May (1); Acadian Flycatcher: first 18 May (1); Wood Pewee: first 7 May (1); Purple Martin: first 14 March (4).

Nuthatch-Shrikes: White-breasted Nuthatch: 25 April (1); Brown Creeper: 16 March (1) last; House Wren: first 23 April (1); Catbird: 26 April (4) first; Brown Thrasher: 10 April (1) first; 20 May nest again found constructed on ground in SV (WC-LRH) same location as 1965 record (THE MIGRANT 36:60); Robin: 6 March peak migration; Wood Thrush: first 23 April (2); Hermit Thrush: last and very late 17 April (1) SV (WC-CS-JS); Bluebird: 16 March (4) and since; Blue-gray Gnatcatcher: first 10 April (1); Cedar Waxwing: last 27 May (6); Loggerhead Shrike: 20 May a nest BCC (WC) 4 eggs; 29 May nest at least 4 young, the first known for SV (WC-LRH).

Vireos-Warblers: The following are earliest arrival dates of season for all species except the Myrtle Warbler: White-eyed Vireo: 24 April (5); Red-eyed Vireo: 25 April (4); Warbling Vireo: 25 April (1); 16 May (2 active nests) BCC (WC); Black-and-white Warbler: 25 April (1); Worm-eating Warbler: 25 April (2); Magnolia Warbler: 5 May (1); Myrtle Warbler: last 7 May (1); Black-throated Green Warbler: 25 April (1); Blackburnian Warbler: 6 May (1); Chestnut-sided Warbler: 1 May (1); Blackpoll Warbler: 7 May (1); Prairie Warbler: 24 April (5); Palm Warbler: 26 April (2); Ovenbird: 25 April (3); Kentucky Warbler: 6 May (1); Mourning Warbler: 4 May (1 male) SHD (WC) first known record for our area; Yellowthroat: 24 April (1); Yellow-breasted Chat: 26 April (1).

Blackbirds-Sparrows: Bobolink: 25 April (12) BCC; Orchard Oriole: 26 April (1); Baltimore Oriole: 25 April (2); Common Grackle: remarkable increase in population 2 March; Scarlet Tanager: 25 April (2); Summer Tanager: 24 April (1); Rose-breasted Grosbeak: 23 April (4); 18 May (2); Indigo Bunting: 26 April (2); Evening Grosbeak: 1 March (flock); Purple Finch: last 4 May (200); Red Crossbills: 17 April (1 male, 1 female) Holston Mountain, Sullivan County (WC) 3235 ft. elevation; Rufous-sided Towhee: 1 May (3); Savannah Sparrow: 23 March (6); 3 April (12); 12 April (20); Grasshopper Sparrow: 24 April (1); Slate-colored Junco: 17 March (1) last; Chipping Sparrow: 17 April (1); White-crowned Sparrow: 26 April (2) last; White-throated Sparrow: 1 May (1) last.

Locations: BCC—Bristol Country Club area, SHD—river area just below South Holston Dam, SHL, Va.—Virginia portion of South Holston Lake, SHL—Tenn. portion of South Holston Lake, SHR—South Holston River near Riverside, SV—Shady Valley, Johnson County.

Observers: JA—Judith Abbott, FB—Fletcher Bingham, CB—Claude Buckles, WC—Wallace Coffey, LF—Mrs. L. M. Faucette, TH—Tim Hawk, LRH—Lee R. Herndon, RH—Roger Holste, HN—H. W. Nunley, CR—Carolyn Randall, FS—Fred R. Scott, JS—John Shumate, CS—Charles Smith, EV—Enno vanGelder.

WALLACE COFFEY—508 Spruce Street, Bristol, Tennessee 37620.

ELIZABETHTON. **Loons-Mergansers:** Common Loon: present on BL throughout the period, with exception of last half of Mar.; max. on 16 Apr. (13); last on 1 May (10). Horned Grebe: 19 Mar. (1); 1 May (1). Pied-billed Grebe: observed in small numbers through 1 May (3). Double-crested Cormorant: 12 Mar., 16 Apr. (1) on PHL (CRS et al). Great Blue Heron: 1-4 birds through 15 May. Green Heron: since 17 Apr. (1). American Bittern: 17 Apr. (1); 1 May (1). Mallard: last on 1 May (2). Black Duck: last on 12 Mar. (15). Gadwall: max. on 5, 12 Mar. (30); last on 1 May (4). Blue-winged Teal: 3 Apr. (4); 9 Apr. (2); 13 Apr. (1). American Widgeon: last on 1 May (12). Shoveler: 9 Apr. (65) on BL (CRS). Wood Duck: present throughout period, with several reports of young. Redhead: max. on 5 Mar. (20); last on 3 Apr. (3). Ring-necked Duck: last on 23 Apr. (2). Lesser Scaup: max. on 9 Apr. (1810) on BL (CRS); last on 1 May (16). Common Goldeneye: only on 5 Mar. (22) and 19 Mar. (1). Bufflehead: max. on 17 Apr. (50); present through 1 May (20). Ruddy Duck: 16 Apr. (2) on BL; 17, 24 Apr. (2) on LPN. Hooded Merganser: last on 1 May (1). Red-breasted Merganser: max. on 22 Apr. (22); last on 1 May (6).

Hawks-Owls: Sharp-shinned Hawk: 29 May (1). Red-tailed Hawk: 1 May (1). Broad-winged Hawk: 24 Apr. (1); 15 May (1). Bald Eagle: 10 Apr. (1) at WiL (ED). Osprey: 9 Apr. (2), 16 Apr. (1), 23 Apr. (1) at BL; 1 May (3). American Coot: last on 1 May (2). American Woodcock: last on 7 May (1). Common Snipe: last on 1 May (3). Spotted Sandpiper: last on 15 May (1) at MC. Solitary Sandpiper: 15 Apr. (1); 23 Apr. (5); 1 May (10). Greater Yellowlegs: 15 Apr. (2). Lesser Yellowlegs: 15 Apr. (3); 1 May (4). Pectoral Sandpiper: 15 Apr. (1). Least Sandpiper: 15 Apr. (1); 1 May (5) at BFH. Dowitcher: 15 Apr. (8). Herring Gull: last on 1 May (4). Ring-billed Gull: last on 2 May (7) on EGC (LRH). Bonapart's Gull: 9 Apr. (12); 15 Apr. (1). Forster's Tern: 1 May (1) (LRH). Yellow-billed Cuckoo: since 7 May (1). Black-billed Cuckoo: 29 Apr. (1); 1 May (3). Great Horned Owl: 1 May (1) near MC. Barred Owl: 1 May (2) and 19 May (1) at LPN (FWB).

Goatsuckers-Starlings: Chuck-will's-widow: since 21 Apr. (1). Whip-poor-will: since 29 Apr. (7). Common Nighthawk: since 25 Apr. (1). Chimney Swift: since 3 Apr. (1). Ruby-throated Hummingbird: 24 Apr. (1); 1 May (2). Yellow-bellied Sapsucker: last on 24 Apr. (1). Eastern Kingbird: since 13 Apr. (1). Great Crested Flycatcher: since 16 Apr. (1). Acadian Flycatcher: since 29 Apr. (1). Traill's Flycatcher: no records for the period. Wood Pewee: since 29 Apr. (1). Horned Lark: 19 May (3); 7 Apr. (2); 1 May (3). Tree Swallow: 3 Mar. (5); 1 May (3). Rough-winged Swallow: since 7 Apr. (1). Barn Swallow: since 3 Apr. (2). Purple Martin: since 2 Mar. (1) (Daywitt, **fide** HD). Black-capped Chickadee: 24 Apr. (1) in AC (FWB). Brown Creeper: last on 16 Apr. (1). House Wren: since 18 Apr. (1). Bewick's Wren: 12 Mar. (1); scattered records throughout Apr. and May. Catbird: since 14 Apr. (1). Brown Thrasher: since 22 Mar. (1). Wood Thrush: since 18 Apr. (1). Hermit Thrush: last on 22 Apr. (1), a rather late date (WAB). Swainson's Thrush: only on 1 May (1). Gray-cheeked Thrush: only on 1 May (3). Veery: since 1 May (7) at high elevations. Blue-gray Gnatcatcher: since 4 Apr. (1). Ruby-crowned Kinglet: last on 1 May (1). Cedar Waxwing: 26 Apr. (3); 1 May (1) ; 14 May (15); 19 May (25). Logger head Shrike: 1-2 birds throughout the period.

Vireos-Warblers: White-eyed Vireo: since 22 Apr. (1). Yellow-throated Vireo: 1 May (3). Solitary Vireo: since 17 Apr. (1) at higher elevations. Red-eyed Vireo: since 24 Apr. (1). Warbling Vireo: since 20 Apr. (1). Black-and-white Warbler: since 10 Apr. (1). Worm-eating Warbler: since 24 Apr. (1). Golden-winged Warbler: 1 May (1). Parula Warbler: first on 1 May (5). Yellow Warbler: since 18 Apr. (1). Magnolia Warbler: 1 May (3); 4 May (1). Black-throated Blue Warbler: since 24 Apr. (1). Myrtle Warbler: last on 19 May (1). Black-throated Green Warbler: 16 Apr. (5); 24 Apr. (1); 1 May (5). Cerulean Warbler: 24 Apr. (1); 15 May (1). Blackburnian Warbler: 1 May (5). Chestnut-sided Warbler: since 24 Apr. (1). Blackpoll Warbler: 1 May (2); 13 May (2). Pine Warbler: 21 Mar. (2); 1 May (1). Prairie Warbler: since 23 Apr. (1). Ovenbird: since 24 Apr. (1). Northern Waterthrush: only on 1 May (1). Louisiana Waterthrush: since 3 Apr. (1). Kentucky Warbler: since 1 May (2). Yellowthroat: since 19 Apr. (1). Yellow-breasted Chat: since 24 Apr. (1). Hooded Warbler: since 22 Apr. (2). Canada Warbler: since 1 May (8). American Redstart: since 29 Apr. (1).

Blackbirds-Sparrows: Bobolink: only on 1 May (106). Orchard Oriole: since 24 Apr. (1). Baltimore Oriole: since 19 Mar. (1). Rusty Blackbird: 19 Mar. (1). Cowbird: throughout the period; max. on 9 Apr. (40). Scarlet Tanager: since 24 Apr. (1). Summer Tanager: since 28 Apr. (1). Rose-breasted Grosbeak: since 24 Apr. (1). Evening Grosbeak: last on 20 Apr. (4). Indigo Bunting: first on 19 Mar. (1) (LB), very early. Purple Finch: last on 3 May (5). Pine Siskin: still present on RM on 29 May (FWB). Red Crossbill: 18 Mar. (1); 24 Apr. (1). White-winged Crossbill: still present on RM on 29 May (approx. 50). Savannah Sparrow: last on 1 May (3). Grasshopper Sparrow: since 27 Apr. (1). Vesper Sparrow: since 18 Mar. (8) at higher elevations. Chipping Sparrow: since 19 Mar. (1). White-crowned Sparrow: last on 6 May (2). White-throated Sparrow: last on 10 May (1). Swamp Sparrow: very scarce; only on 17 Apr. (1) and 1 May (1). Fox Sparrow: last on 17 Apr. (1).

Locations: AC—Avery County, North Carolina, BFH—Blountville Fish Hatchery, BL—Boone Lake, EGC—Elizabethton Golf Course, LPN—Lake

(continued on page 40).

SOME FACTS LEARNED FROM NOCTURNAL MIGRATION

ALBERT F. GANIER

The following discussion is derived from a study of the number of migrating birds and the number of each species, that were picked up dead around television (T-V) towers, airport ceilometers and in a few cases about lighted buildings. Some 26 lists of such nocturnal casualties are included in the tabulation here presented*, all having been published in **THE MIGRANT** and other journals, for which see accompanying citations. The region over which these "bird-falls" occurred, covers that part of the mid-continent flyway which lies between the Mississippi river and the Appalachian mountains to the eastward. Lists of birds picked up further westward or eastward were not included, they being influenced by factors not obtaining within the area above described. The total number of species of birds picked up in this area is 107 and these are represented by 16,118 individual birds examined and identified. A number of specimens, mashed by traffic or otherwise unrecognizable, are not included in the list, such specimens included empidonax flycatchers and immature warblers, the identity of which would have been uncertain.

The chief purpose of the present study was to determine the species which are habitual nocturnal migrants and the species which rarely or never migrate during the night. This is evidenced by a study of the tabulation which indicates for example, that such regularly and abundantly occurring casualties as the Catbird, Wood Thrush, Swainson's Thrush, Grey-cheeked Thrush, Red-eyed Vireo and of the warblers, the Black-and-white, Tennessee, Magnolia, Black-throated Green, Blackburnian, Chestnut-sided, Bay-breasted and Palm, the Ovenbird, Yellowthroat, Redstart and Northern Waterthrush, are confirmed nocturnal migrants. The Indigo Bunting might fall in this class too except that since it is such an abundant species, as many or more may travel by day as well as at night.

On the other extreme, a number of our migratory birds which are not rare and which rarely if ever become nocturnal casualties, would seem to classify themselves as diurnal migrants. These daytime migrants appear to include most of the waterbirds including the ducks and shorebirds, also the hawks, Turkey Vultures, woodpeckers, Blue Jay, Brown Thrasher, Mockingbird, Robin, most flycatchers including the Kingbird, Swifts, the swallows, Chipping Sparrow, Starling, Meadowlark, the "blackbird group" and perhaps certain members of the warbler family which we find common during daylight hours in their migratory period. Among this diverse group are those well known to form "roosts" wherein to pass the night.

Several species are absent from the lists or nearly so because they leave early for the south, notably the Orchard Oriole and Louisiana Waterthrush. Three others, of which only one each was found, were few because they migrate later; these are White-crowned Sparrow, Rusty Blackbird and Mallard. Ten other species, of which only one each was recorded, would appear to be only accidentals among the night flyers. These are the Nighthawk, Robin, American and Least Bitterns, Blue-winged Teal, Common Snipe, Red-headed Woodpecker, Starling and Vesper Sparrow.

The twenty-six columns shown in the chart, headed A, B, C, — Z, are arranged in order of date of publication and a key to these letters is shown on the fourth page of the chart insert. It was not found practicable to arrange them by dates of each occurrence because some of the lists cover several fall periods. During some fall migration periods there are no large bird-falls. Casualties occurring during spring migration are few, only columns U and Z recording the only two of any consequence, these totalling 96 and 82 birds respectively. Fewer numbers in spring apparently reflect fewer birds, due to winter mortality and also a less hasty northward journey.

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*For the tabulation referred to, see insert following page 28.

One of the most notable facts brought out by the chart, is the fact that on certain nights, a prodigeous number of one or more species become casualties while the balance of the list is normally varied. For example, there were 95 Red-eyed Vireos out of a total kill of 248 at Nashville, 9 Sept. 1948; among 1400 killed at Smyrna, Tenn., 24 Sept. 1955, there were 77 Catbirds, 139 Swainson's Thrushes, 206 Tennessee Warblers, 187 Ovenbirds, 157 Magnolia Warblers and 100 Yellow-throats; among 1044 killed in Knoxville, 7 Oct. 1951, there were 387 Ovenbirds; among 1376 killed at Gatlinburg, 1 Oct. 1965, there were 697 Swainson's Thrushes, 124 Grey-cheeked Thrushes and 86 Scarlet Tanagers.

The cause of so many birds of a certain species to fall on a certain night would seem to indicate that a wave of this particular species arose from the ground for some reason to join the hegira. It would be difficult to prove the exact cause of this phenomena but the writer ventures to offer the following as a plausible explanation. It has been proven in laboratory experiments that caged individuals of migratory birds develop great restlessness if detained beyond the time they would normally migrate. With this knowledge in hand, we may assume that all of the Ovenbirds or of the Swainson's Thrushes for example, remaining in their respective summer habitats into the fall, develop this restlessness on the eve of normal migration time but something unusual is necessary to trigger a start. Let us assume then that a cold front north of the Ohio river starts the birds of that region and of these species on their southward flight. As the flock moves on, giving frequent call notes in order to keep together, those below hear the calls and rise to join the passing throng. The first arisen birds, we may assume, eventually tire and come down but later recruits keep the wave on the wing. The calls aloft of the two species mentioned might easily recruit nearly all of the restless birds below of their own species without greatly arousing the interest of other species. Here we might well recall and apply the old adage, that "birds of a feather flock together". If such an aggregation happens to pass a television tower, the resulting bird-fall will reflect the composition of this particular flight. The 772 Swainson's Thrushes that fell at Gatlinburg, out of a total of 1828 casualties, provides a good illustration of this theory.

The chart may also help to shed information on the relative abundance of the species shown. Taking the warblers for example, it would be reasonable to suppose that their movement southward in the fall would follow the same pattern. No one that I know of has ever reported a communal warbler roost during migration so it may be assumed that, after a siesta in the early hours of the night, they arise and fly for a number of hours before coming down again. Our telescopic observations of migration across the full moon bear this out. If this pattern of migration therefore is followed by the warbler group, it follows that the most abundant species are the Black-and-white, Tennessee, Magnolia, Black-throated Green, Chestnut-sided Warblers, Ovenbird, Yellowthroat and Redstart. Others give evi-

AVIAN CASUALTIES RESULTING FROM NOCTURNAL MIGRATION

Source →	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Total	Fla
Pied-bill Grebe	6								2		2	1								1							12	19
Gt.' Blue Heron													1							1		1					3	0
Green Heron																			1	1				1			3	9
Least Bittern														1													1	2
Amer. "	1																										1	7
Mallard													1														1	0
Blue-wing Teal													1														1	8
Black Vulture											1																1	2
Virginia Rail									1				2							1				1			5	12
Sora "	2		6		1			4	11	1	2		5							7							41	37
Yellow "											1		3														4	0
Amer. Coot													3							3		2					8	20
Com.' Snipe		1																									1	0
Mourning Dove		2							1								1			2		2		1			9	0
Yellow-b' Cuckoo		2	1								4		1	1			2	7		1			7	5			55	163
Blackbill' "		1	1			1							4				1		1	6			2				20	16
Whip-poor-will		1	1										3														6	0
Nighthawk									1																		1	8
Flicker																	1			2		1		2			6	4
Red-head Woodp'r																				1							1	1
Yel-bel' Sapsucker			1						4		3		2							1				1			8	15
Gr. Cr. Flycatcher					1	4																					5	11
Yellow-bel' "	19	1											4	1			1							3			37	0
Acadian "	1		1			1			2																		5	24
Traill's "									3		2	1															6	10
Least "																										1	1	0
Wood Pewee	5	1	4			5			5				14			1	1			1				3			40	16
Red-br. Nuthatch											1									1							2	0
Brown Creeper											1		2							2		5					11	4
House Wren											1		4							2					1		11	83
Winter "											1						1										3	5
Long-b. Marsh "		2									1		9				1			2				3			26	48
Short-b' " "		1									2									3							10	65

SOURCE →	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Total	Fla.
Catbird		2	5	1		37			77	8	47	1	219		2		2	7	3	9		88	32	32			571	445
Br. Thrasher		1								1			1							1		1			1		6	130
Robin											1																1	26
Wood Thrush		1	4	1		23	1	1	9	2	28	5	26				5	1		2	1	14	8	8	1		141	120
Hermit "											4		3							1		1					9	37
Swainson's "	2	4	17			45		11	139		56	12	82				6	39	24	21	1	8	811	11	8	6	1303	129
Grey-cheek "		1				19		5	58	1	32	4	95					26	10	7		6	159	2	2		431	59
Veery	2					1			4				2				2	2	3	10		3	13	4	4		50	416
Kinglet. Golden-cr.											17					2	6					5		1			31	20
" Ruby-crown											3		1			1	1			1		8					15	253
Starling											1																1	4
Vireo. White-eye		2	2					1	7		2		12						1			7	4	3	3		44	581
" Yellow-thr.	1	6	7	1		11		3	16		1	3	16		1		1		1		2	5	3	1	1	1	81	179
" Solitary						2							1									9		1		1	14	27
" Red-eyed	95	11	42	3	7	22	37	26	74	2	20	57	527	15	16		13		4	55	55	121	20	166	1	22	1405	3000
" Philadelphia		37	4	4	3	27		5	25		2	1	43		2	1	1			12	7	35		5	1	5	220	3
" Warbling		1																				2					3	1
Warbler. Bl.& Wh.	9	3	14	6	13	25	35	8	44	2	14	1	67	23	1		5	2	2	14		26	15	35	5		370	322
" Prothonotary	2													1													3	186
" Swainson's			1																				3				4	69
" Worm-eating									1				2						6	2		1	7	1		1	21	186
" Golden-wing													6									2		1	1		10	18
" Blue-winged									1		2									1				1			5	15
" Tennessee	7	100	80	14	50	35	45	25	206	2	44	15	456	4	86	9	37	6	4	91	2	488	56	69	3	3	1938	187
" Orange-crown			4								3	1	1									3		2			14	87
" Nashville	1	4				1			3		1		13				1			1		18	1	5		1	59	1
" Parula		2								1		2	2									1	1	1	1	1	12	694
" Yellow	4										2		3	5						2	1			5		1	23	23
" Magnolia	5	71	61	17	66	88	163	15	157	8	44	17	303	22	14	3	17	3	4	42	3	186	74	27	3	5	1418	146
" Cape May			2			1						1							1				5	1			11	9
" Black-th. Blue			2						1		2	8	3					1					6	1			24	12
" Myrtle									1	2	16		2			1	11	1		2		17		6			59	590
" Black-th. Green		9	25	5	12	10		6	23	1	9		40	1	6	2	8	1		6	2	76	3	8		2	255	19
" Cerulean	1												4	1										1		1	8	19
" Blackburnian	1	3	39	2	4	1	11	7	5	1	10	13	44	3	1		5	4	6	14	9	15	53	25	1		273	252
" Yellowthroated			2						2										1			2	1				8	80
" Chestnut-side	9	22	90	6	30	15	46	18	33	4	27	13	111	1		2	5	2	1	20	4	49	76	30	2	3	613	155
" Baybreasted		14	63	5	8	10	20	13	12	6	35	14	123	22		1	13	34		26	6	195	40	33	2		695	67
" Blackpoll		1	2										1	1							2	5		1			13	39
" Pine			1				1						1														3	85
" Prairie	1								2									1	2				3				9	392

SOURCE →	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Total	Fla.
Warbler. Palm			17			2			12	1	9		48		5	2	30	6		22		76	24				254	1264
" Kentucky	9		2			2			5		1	1	16	13			3		8	9	1		5	13		1	89	186
" Mourning	4	1		1					3				3			1		1		2		4					20	0
" Hooded													2						3			1	50				56	584
" Wilson's	1		1				1		1		1		3		2		1			1	1	1	1	1			16	2
" Canada	20		2		1	2		2	5		3		7	5	6		2			6	5	1		25		1	93	2
Ovenbird	6	57	387	12	37	92	37	81	187	9	73	26	793	17	6	2	23	30	23	62	3	168	176	187	4	15	2513	235
Nor' Waterthrush	7	2	3		1			2	18	1	6		32				5	21	6	28		8	8	16			163	169
Yellowthroat	4	34	32	3	1	14	9	2	100		22	2	116		1	1	4	7	13	19		47	53	14			500	512
Yellow-br.' Chat	20		3			5	1		4		3	1	68	12			3	2	1	9		10	1	34	2	6	185	51
Amer. Redstart	4	2	9	1	3	14	2	3	55	1	23	3	97		1		2	2	4	23		45	36	23	4		362	400
Bob-o-link	1		2						4				20		2			21	1	3		4	6	10	1		75	127
Blackbird. Red-wing																				3							3	88
" Rusty													1														1	0
Baltimore Oriole	1													1						4	1			4		2	12	9
Tanager. Scarlet		8	33	1	1	14	1	14	10		6	1	15					23	6			5	107	2	1		248	70
" . Summer		2	4	1	1	2		2	9		2	2	3					7	1			4	5				45	152
Grosbeak. Rose-br.'		4	3			2	20	2	3	1	6	1	22			1		7		3		22	4	4	1		106	13
Indigo Bunting		26	21	5	12	64	13	4	15	2	18		21			1	4	3	2	9	1	22	21	4		3	269	335
Dickcissel					2						1		12	1													16	9
Sparrow, Savannah	1						1				7		2				2			1		2	2	2			20	361
" Grasshopper		2							1		3		1				1					1	2	1			11	159
" Sharptailed									1				1									1					3	9
" Vesper													1														1	52
Junco. Slate-col''											3									2		1					6	7
Sparrow. Chipping											1		1				1					2		2			7	288
" Field											21		2				1			2		2					28	2
" White-crown'																						1					1	9
" White-throat										1	12		7				2			5		8		3			38	192
" Fox											2		1									1		2			6	2
" Lincoln's											1											4					5	1
" Swamp						7				1	9		11				6			16		25		3			78	180
" Song							1				7		3				2			2		3		2			21	90
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z		
Total species	33	40	46	19	20	35	22	26	51	27	67	29	77	22	16	18	46	30	30	62	20	73	43	59	24	21	16,118 – 107	
Total number	248	448	1044	89	255	681	454	267	1400	68	704	214	3683	135	167	34	243	270	144	630	96	1940	1915	857	50	82		

SOURCES OF INFORMATION ON BIRD-FALLS

	THE MIGRANT Year Vol. Page	Author	Location	Hazard	Date	Number-Specie
A	1949 20: 9	Spofford	Nashville,	airport ceilometer	9-10 Sep. 1948	248-33
B	1951 22:57	Laskey	"	" "	7-8 Oct. 1951	448-40
C	" " : 61	Howell & Tanner	Knoxville	" "	" " "	1044-46
D	1954 25:59-61	Laskey	Nashville	" "	6-7 Oct., 1954	89-19
E	" " : "	"	Smyrna	" "	" " "	255-20
F	" " : 62	West	Chattanooga	" "	" " "	681-35
G	" " : 63	Dunbar	Oak Ridge	buildings	" " "	454-22
H	" " : 64	Tanner	Knoxville	airport ceilometer	" " "	267-26
I	1956 27: 9-10	Laskey	Nashville & Smyrna	" "	24-25 Sep. 1955	1400 - 51
J	" " : 66-67	"	"	T-V towers	5-19 Oct. 1956	68-27
K	1957 28:54-56	"	"	T-V tower.	9/23 to 11/15, 1957	704-67
L	" " :56-57	Herndon	Johnson City	" "	29 Sep. "	214-29
M	1960 31:61-65	Laskey	Nashville	2 " "	1958 - 1959 - 1960	3683-77
N	1962 33:58-60	Ganier	"	W.S.M " "	5-6 Sep. 1962	135-22
O	" " "	"	"	" " "	5-6 Oct. "	167-16
P	" " "	"	"	" " "	17-18 " "	34-18
Q	1963 34:15	Laskey	"	WSIX " "	Fall "	243-46
R	" " :34-35	Ganier	Magnolia, Ky.	buildings	25 Sep. "	270-30
S	" " : 56-57	Savage	Gatlinburg	ski lift	22 " "	144-30
T	" " : 65-66	Laskey	Nashville	3 T-V towers	Fall 1963	630-62
U	1964 35 : 53	Coffey	Memphis	" "	7 May '61; 11 May '64	96-20
V	" " : 95-96	Laskey	Nashville	2 " "	Fall 1964	1940-73
W	1965 36:81-82	Savage	Gatlinburg	Ski lift	Fall 1965	1915-42
X	" " : 80-81	Laskey	Nashville	2 T-V towers	" "	857-59
Y	" Letter	Campbell	Knoxville	1750' " "	2 Oct. 1965	50-24
Z	Kentucky Warbler 1961 37:55	Barbour	Lexington, Ky.	670' " "	7 May 1961	82-21
"FLA"	See Selected References	Stoddard	Leon County, Fla.	" "	1955 thru 1961	15,251-149

Note: All locations are in Tennessee except the 3 specified.

dence of being low in population, such as the Cape May, Black-throated Blue, Mourning and Wilson's Warblers. The Blackpoll shows up as rare but this is because their fall migration goes down the Atlantic coast. The relative numbers above mentioned check quite well with daytime field observations during the migration season. From the casualty list we might reasonably conclude that the Ovenbird was the most abundant of the warbler family, its total of 2513 being 15.5 percent of the 16,118 casualties of all species identified. Following the Ovenbird are Tennessee Warbler, 1933 (12.1 percent), Red-eyed Vireo and Magnolia Warbler, approximately 1400 each (8.8). These four species comprise 45.4 percent of the total casualties.

As an additional item of interest to the lists discussed, I have added a final column, marked "Fla.", covering birds that fell during nocturnal migration at a T-V tower near Thomasville, Ga., during a five year period, 1955-1961. Other species than those listed fell at this site. A very informative report on the casualties there has been published by Herbert L. Stoddard, 1962, and mentioned among the selected references at the end of this paper.

Not included in the tabulation but of interest because of its geographic location, is the report of Brewer and Ellis (1958). They give the casualties of seven T-V tower bird-falls in east-central Illinois and of the 496 speci- (240). The ten most numerous species of the 427 which fell on these two mens identified, 427 fell on two nights, viz, 9/23-24/1955 (187) and 10/6-7/55 night were 19 Swainson's Thrushes, 12 Red-eyed Vireos, 13 Rose-breasted Grosbeaks, and of the warblers, 38 Tennessee, 24 Magnolia, 78 Myrtle, 44 Palm, 55 Ovenbirds, 24 Yellowthroats and 21 Redstarts.

The chart will serve to present in condensed and easily readable form, the data gathered on the twenty-six bird-falls in question. From it, further studies can be made and further deductions considered. Another ten year period should furnish material for a new or revised chart and meanwhile all such casualties should be placed on record. Those who have published the observations and data cited have appreciated the opportunity thus afforded and deserve much credit for making their findings available. Their names are those mentioned in the references cited and particular credit is due Mrs. Amelia R. Laskey for her regular and consistent gathering and publishing on the birds which have fallen at Nashville.

SELECTED REFERENCES

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JOHNSTON. D. W. and HAINES. T. P. 1957. Analysis of mass bird mortality in October, 1954. Auk 74-447-458. (A compilation of the most destructive bird-falls of this type on record, 5-8 Oct. 1954, over wide area. One detailed list showed 53 species among 2552 gathered.)

OGDEN. J. 1960. Observations at a T-V tower during a bird-fall.

The Migrant 31:65-67. (Describes actions of birds during flight).

SPOFFORD, W. R. 1949 Mortality of birds at the ceilometer of the Nashville airport. Wilson Bul. 61:86-90 (A further discussion of the casualties reported in The Migrant 20:9 and elsewhere).

STODDARD. H. 1962. Bird casualties at a Leon County, Florida, T-V tower, 1955-1961. Bul. #1, Tall Timbers Station, Tallahassee. (Informative discussion and annotated list of 149 species among 15,251 identified. Near Thomasville, Ga.)

2112 Woodlawn Dr., Nashville, Tenn. 37212. May 1, 1966.

DANCING PILEATED WOODPECKERS.—At about 8:30 a.m. Wednesday, 12 January, I observed two pileated woodpeckers engaged in a sort of ritualistic dance in a most unlikely and public place. I was driving downtown to work along Belle Meade Boulevard, a double lane highway leading to Harding Road. This is in a built up residential area which mixes relatively large and small lots. At the particular spot of this occurrence a grassy area on the right extended eight or ten feet from the shoulder of the road through a slight ditch to a stone wall about four feet high. Above this the ground sloped in a bank or terrace to a house some distance away. There are only a few trees of small to medium size on this lot, but the next lot about 150 feet farther on contains quite a number of trees.

As I approached this area I noticed ahead of me on the side of the road a pair of birds hopping around. Something about them struck me as unusual. They were too big to be starlings. I thought briefly of quail or chickens, but as I drew abreast of them I was astonished to discover they were Pileated Woodpeckers. At the next cross over I circled back to take another look, my first thought being that they were injured in some way and could not fly. They were still in the same spot, though cars kept passing by in a steady procession. This time I stopped just abreast of them. They could fly, for after a short interval they flew up to the top of the stone wall some twelve feet away, where they continued their circling. They would hop around and around, not attempting to touch each other, at times pointing their heads straight up in the air and at other times apparently pecking at the ground. Several times they came up with a dead leaf on their beaks, which they would shake off. I endeavored to determine their sex, as it was natural to assume that this was a very early courting display. January to this date had been fairly mild and dry. As they circled there was no marked difference between the birds. I concentrated on looking for the red streak on the neck by the beak. This was noticeable on one, though not very pronounced. I could not distinguish it on the other, but the birds changed positions so fast it was hard to tell. I should have studied their crests more, but I did not notice any difference in red here. I am sure one was a male and at the time I was inclined to think both were, but the second may have been a female.

Finally I got out of the car. As I walked slowly toward them one flew off, first to a telephone pole and then to rejoin the other on a small tree inside the original yard. At this point I had to go to town. They had been completely undisturbed by the passing cars and by me, until I got out of the car.

I reported this to a meeting of the Nashville Chapter of the T.O.S., after which Mr. Ganier stated that Mr. Morton Howell had called him to report the same incident. He apparently had gone by just a little ahead of me.

JESSE E. WILLS, 1201 Belle Meade Boulevard, Nashville, Tenn. 37205.

THE 1966 SPRING FIELD DAYS

T. O. S. MEMBERS

The twenty-first successive annual state spring count resulted in more than two hundred species for only the third time. The count was exceeded in 1961 (210) and equalled in 1964 (202). The total number of species, subspecies and hybrids recorded on all counts has been 257. This number excludes the Rock Dove but includes two species new to the list this year — the Egyptian Goose and White-winged Crossbill.

Twelve counts were made from widely separated areas over the state. This number of counts was equalled only in 1954 when 197 species were reported. This number of species has been exceeded only four times, all during the period 1961-1966. Late departures account for a substantial number of species this year.

INFORMATION ON THE COUNTS

The first count of the season was made on 23 April by the Nashville Chapter and the latest by the Kingsport Chapter on 14 May. The count for the Crossville area was the result of the annual state meeting and covered a two day period, 7 and 8 May. The counts are arranged from west to east in the columns in the table. Pertinent information and comments will be found under appropriate area titles.

MEMPHIS—Our Spring Field Day was plagued by rain. We had one scheduled at Reelfoot Lake on 23-24 April and another on 1 May at Shelby Forest. The Reelfoot trip was to be extra-curricular and the Shelby Forest trip our official Field Day, but the latter was completely rained out so we are sending the Reelfoot record. Twenty-two members attended, birding from 3:00 p.m. to dark on Sat. and again on Sun. from 6:20 a.m. until noon. We were in two general parties, one covering the State Park and Washout area at the south end of the lake and the other covering the Wildlife Refuge near Walnut Log. The water was too choppy and the showers too frequent to permit any party going out on the lake. At about 9:30 on Sunday the two parties met and drove around the north end of the lake, stopping at ponds and fields to observe shore birds feeding there. Despite the rain, it was rewarding to see the egrets and Great Blue Herons winging overhead; also everyone had especially good views of American Bitterns and Cattle Egrets.

Compiler: Noreen M. Smith (Mrs. Arlo I.)

COLUMBIA—The count was made on 28-29 April — noon to noon. Rain occurred at times; temp. 55° to 85° F. Participants: Mayfields (Compiler), Fuquas and Grays.

NASHVILLE—The count was held on 23 April. Perfect weather brought out 44 observers in 12 parties. 132 species were reported, which is one less than last year. The area covered extended from Old Hickory Lake to the northern part of Williamson County and to the Ashland City marsh; this is the same area that has been worked in recent years. The Purple Gallinule was found at Radnor Lake by Miss Mary Wood's party and remained there for several days. This is only the fifth record for this species in the Nashville area. The House Wren was located in Percy Warner Park, at the same place it was found during the State Meeting last

TABULAR RECORD OF 1966 SPRING FIELD DAYS

	Reelfoot	Columbia	Nashville	Cookeville	Crossville	Chattanooga	Knoxville	Cosby	Greeneville	Kingsport	Bristol	Elizabethton.
Common Loon	--	--	--	--	--	1	--	--	--	--	--	10
Horned Grebe	--	--	--	--	1*	11	--	--	--	--	--	1
Pied-billed Grebe	--	2	8	--	1	4	4	--	--	--	--	3
Great Blue Heron	5	5	1	3	--	1	2	--	--	1	--	--
Green Heron	1	--	2	5	9	20	3	--	5	8	--	7
Little Blue Heron	--	--	--	--	--	--	1	--	--	--	--	--
Cattle Egret	3	--	--	--	--	--	--	--	--	--	--	--
Common Egret	35	--	--	--	--	--	--	--	--	--	--	--
Bl.-cr. Night Heron	--	--	46	--	1	1	--	--	--	--	--	--
Yel.-cr. Night Heron	--	--	4	1	2	4	2	--	--	--	--	--
American Bittern	3	--	--	--	--	8	--	--	--	--	--	1
Canada Goose	--	--	--	--	--	--	--	--	2	--	--	--
Snow Goose	--	--	--	--	--	--	--	--	1	--	--	--
Egyptian Goose	--	--	--	--	--	--	--	--	2	--	--	--
Mallard	--	4	--	--	--	5	5	--	32	2	--	2
Black Duck	--	--	--	--	--	7	4	--	--	--	--	--
Gadwall	--	--	3	--	--	--	--	--	--	--	--	4
Blue-winged Teal	5	9	111	--	--	26	11	--	8	2	--	--
American Widgeon	--	3	4	--	--	--	1	--	2	3	--	12
Wood Duck	5	6	8	2	3	13	14	--	4	49	--	2
Ring-necked Duck	--	--	24	--	1	--	--	--	--	--	--	3
Lesser Scaup	--	3	122	--	3	45	--	--	--	--	--	16
Bufflehead	--	1	3	--	--	2	--	--	--	--	--	20
Ruddy Duck	--	--	--	--	--	20	--	--	--	--	--	--
Hooded Merganser	--	--	--	--	--	1	--	--	--	--	--	1
Common Merganser	--	--	--	--	--	2	--	--	--	--	--	--
Red-breasted Merganser	--	--	--	--	2	3	3	--	--	--	--	6
Turkey Vulture	2	2	55	3	11	3	8	--	4	9	--	--
Black Vulture	5	15	12	2	--	1	3	--	1	1	--	--
Sharp-shinned Hawk	--	--	1	--	--	1	--	--	--	--	--	--
Cooper's Hawk	--	--	--	1	--	1	2	--	2	--	--	--
Red-tailed Hawk	--	2	8	4	3	3	6	--	1	--	--	1
Red-shouldered Hawk	--	1	1	--	--	4	--	--	--	2	--	--
Broad-winged Hawk	--	1	14	2	10	5	10	1	--	2	--	--
Marsh Hawk	--	1	--	1	--	1	--	--	1	--	--	--
Osprey	--	--	1	--	1	1	2	--	1	--	--	3
Peregrine Falcon	--	--	--	--	--	--	1	--	--	--	--	--
Sparrow Hawk	--	6	13	4	1	4	5	--	--	1	1	4
Ruffed Grouse	--	--	--	--	2	--	--	6	--	2	--	--
Bobwhite	--	32	45	27	30	49	130	--	47	18	13	52
Ring-necked Pheasant	--	--	--	--	--	--	--	--	1	--	--	--
King Rail	--	--	--	--	--	2	--	--	--	--	--	--
Virginia Rail	--	--	--	--	--	1	--	--	--	--	--	--
Sora	--	--	1	--	1	26	--	--	1	--	--	--
Purple Gallinule	--	--	1	--	--	2	--	--	--	--	--	--
American Coot	Com.	25	63	6	4	45	5	--	1	--	--	2
Semipalmated Plover	--	1	--	--	--	1	--	--	--	1	--	--
Killdeer	4	9	19	8	8	38	29	--	1	3	--	9
American Woodcock	--	--	--	--	--	2	--	--	--	--	--	--
Common Snipe	--	--	1	8	--	14	13	--	--	--	--	3
Upland Plover	2	--	--	--	--	--	--	--	--	--	--	--
Spotted Sandpiper	1	22	10	--	18	19	18	--	2	4	--	13
Solitary Sandpiper	2	16	9	5	7	13	39	--	1	2	--	10
Willet	--	--	--	--	--	7	--	--	--	--	--	--
Greater Yellowlegs	--	--	1	--	2	5	1	--	--	--	--	--
Lesser Yellowlegs	--	5	1	--	1	12	8	--	--	2	--	4
Pectoral Sandpiper	1	--	--	--	--	6	--	--	--	1	--	--
Least Sandpiper	--	5	--	--	--	--	--	--	1	4	--	5
Semipalmated Sandpiper	20	--	--	--	--	--	2	--	--	2	--	--
Western Sandpiper	--	--	--	--	--	--	--	--	--	1	--	--
Herring Gull	--	--	--	--	--	1	1	--	--	--	--	4
Ring-billed Gull	2	--	4	--	--	--	--	--	--	--	--	103
Forster's Tern	--	--	--	--	--	--	--	--	--	--	--	1
Mourning Dove	20	23	93	95	20	142	299	--	53	28	50	35
Yellow-billed Cuckoo	--	1	6	4	3	3	3	1	3	3	2	2
Black-billed Cuckoo	--	--	--	2	2	1	2	--	1	--	--	3

TABULAR RECORD OF 1966 SPRING FIELD DAYS

	Reelfoot	Columbia	Nashville	Cookeville	Crossville	Chattanooga	Knoxville	Cosby	Greeneville	Kingsport	Bristol	Elizabethton.
Screech Owl	--	--	2	--	1	--	2	--	--	--	--	2
Great Horned Owl	--	2	--	--	2	--	1	--	--	1	--	1
Barred Owl	2	2	--	--	1	--	--	1	--	--	--	2
Chuck-will's-widow	--	10	--	3	1	10	8	--	5	1	--	4
Whip-poor-will	--	16	6	2	6	9	2	--	--	1	1	17
Common Nighthawk	--	2	2	1	5	4	1	--	2	12	1	4
Chimney Swift	9	140	210	139	70	230	380	5	42	20	35	90
Ruby-th. Hummingbird	--	1	13	--	12	12	10	2	2	2	--	2
Belted Kingfisher	1	4	12	2	4	13	4	--	1	5	--	13
Yellow-sh. Flicker	2	2	21	33	26	57	104	2	14	15	19	51
Pileated Woodpecker	2	5	22	9	12	8	17	2	7	4	3	2
Red-bellied Woodpecker	5	10	46	19	12	25	45	--	10	4	--	2
Red-headed Woodpecker	3	2	4	16	75	12	31	--	2	4	3	4
Yellow-bel. Sapsucker	2	--	1	1	--	2	2	--	--	--	--	--
Hairy Woodpecker	--	4	6	4	4	2	5	--	--	1	2	--
Downy Woodpecker	6	12	41	13	18	19	56	4	9	7	17	11
Red-cock'd. Woodpecker	--	--	--	--	3	--	--	--	--	--	--	--
Eastern Kingbird	6	12	20	16	21	38	9	--	6	13	--	20
Great Crested Flycatcher	9	10	13	3	65	34	24	--	12	16	--	5
Eastern Phoebe	1	3	22	10	14	25	31	--	7	4	3	21
Acadian Flycatcher	--	14	1	--	4	3	1	--	4	8	--	5
Least Flycatcher	--	--	--	--	--	--	--	--	--	--	--	10
Eastern Wood Pewee	11	9	6	3	32	39	5	1	8	6	--	5
Olive-sided Flycatcher	--	--	--	--	--	--	--	1	--	--	--	--
Horned Lark	--	4	7	--	5	4	4	--	1	1	--	3
Tree Swallow	Ab.	--	--	--	--	4	5	--	--	--	--	3
Bank Swallow	--	--	4	--	1	4	--	--	--	2	3	1
Rough-winged Swallow	15	10	8	3	17	54	38	--	7	17	--	21
Barn Swallow	15	44	75	[illegible]	26	72	119	--	39	36	6	29
Cliff Swallow	--	--	8	--	--	90	--	--	3	--	--	2
Purple Martin	30	38	32	14	20	396	113	--	17	151	--	43
Blue Jay	10	14	311	158	50	337	451	4	57	68	26	131
Common Raven	--	--	--	--	--	--	--	--	--	--	--	3
Common Crow	15	31	49	50	16	91	323	4	30	34	18	53
Fish Crow	3	--	--	--	--	--	--	--	--	--	--	--
Black-capped Chickadee	--	--	--	--	--	--	--	(10	--	--	--	--
Carolina Chickadee	6	20	82	28	23	65	134	(	12	12	29	33
Tufted Titmouse	9	14	74	43	65	71	138	6	11	50	42	36
White-br. Nuthatch	3	2	3	8	12	11	3	--	--	3	--	1
Red-breasted Nuthatch	--	--	--	--	--	--	7	2	1	1	--	20
Brown Creeper	--	--	--	1	--	--	--	1	--	--	--	--
House Wren	--	--	1	2	--	--	1	--	3	9	2	5
Winter Wren	--	--	--	--	--	--	3	--	--	--	--	3
Bewick's Wren	--	2	8	15	6	2	--	--	3	1	--	--
Carolina Wren	6	8	26	10	22	--	145	1	8	5	1	23
Long-bld. Marsh Wren	--	--	--	--	--	3	--	--	--	--	--	--
Mockingbird	6	10	126	61	19	159	313	--	20	43	10	40
Catbird	1	11	26	21	15	69	17	--	11	9	1	58
Brown Thrasher	2	14	38	49	22	87	133	2	20	24	8	51
Robin	26	13	171	88	50	139	324	--	44	55	58	216
Wood Thrush	4	7	34	14	70	72	83	4	6	39	2	51
Hermit Thrush	--	--	1	--	--	2	--	--	--	1	--	--
Swainson's Thrush	--	3	8	1	5	4	1	--	1	7	--	1
Gray-cheeked Thrush	--	2	--	--	2	1	1	--	--	--	--	3
Veery	--	2	--	1	3	6	2	1	2	--	--	7
Eastern Bluebird	3	8	43	52	30	68	66	--	11	4	12	11
Blue-gray Gnatcatcher	20	15	57	19	51	31	79	4	8	11	--	3
Golden-crown Kinglet	--	--	2	--	1	--	1	--	--	--	2	6
Ruby-crowned Kinglet	--	--	--	--	1	1	30	--	--	--	--	1
Cedar Waxwing	--	10	11	2	12	83	--	--	3	--	--	1
Loggerhead Shrike	5	5	20	6	6	20	22	--	3	7	--	2
Starling	Com.	500	375	108	37	775	902	--	111	100	66	492
White-eyed Vireo	6	11	48	18	14	29	53	2	3	8	--	15
Yellow-throated Vireo	1	5	10	1	13	6	14	--	--	3	--	3
Solitary Vireo	--	--	--	--	--	--	1	8	--	--	--	1
Red-eyed Vireo	3	9	65	9	80	56	98	2	14	42	--	26
Philadelphia Vireo	--	--	--	--	--	--	1	1	--	--	--	--
Warbling Vireo	3	--	--	--	--	1	2	3	--	2	--	1
Black-and white Warbler	1	6	12	2	40	29	42	2	2	20	--	18
Prothonotary Warbler	12	6	33	1	--	6	10	--	2	--	--	--

TABULAR RECORD OF 1966 SPRING FIELD DAYS

	Reelfoot	Columbia	Nashville	Cookeville	Crossville	Chattanooga	Knoxville	Cosby	Greeneville	Kingsport	Bristol	Elizabethton.
Worm-eating Warbler	--	4	2	--	8	4	12	--	3	16	--	3
Golden-winged Warbler	--	1	2	--	22	--	11	--	--	--	--	1
Blue-winged Warbler	--	16	26	--	3	15	5	--	--	--	--	--
Tennessee Warbler	1	17	13	--	5	9	5	--	--	10	--	--
Nashville Warbler	--	1	2	--	1	--	1	--	1	--	--	--
Parula Warbler	8	--	7	--	7	1	2	2	3	4	--	5
Yellow Warbler	1	9	41	10	11	19	43	1	13	11	--	44
Magnolia Warbler	--	1	--	--	4	7	--	1	2	--	--	3
Cape May Warbler	--	1	--	--	15	58	1	4	--	4	--	--
Black-th. Blue Warbler	--	--	--	--	--	--	2	4	2	--	--	12
Myrtle Warbler	35	13	96	7	19	139	226	--	47	1	1	39
Black-th. Green Warbler	--	10	2	--	10	6	15	8	4	2	--	5
Cerulean Warbler	7	12	14	--	7	--	25	--	--	20	--	--
Blackburnian Warbler	--	1	6	--	5	5	7	2	--	7	--	5
Yellow-th. Warbler	--	1	22	--	20	4	7	--	--	3	--	--
Chestnut-sd. Warbler	--	5	--	--	6	18	8	2	5	2	--	16
Bay-breast. Warbler	--	6	--	--	6	14	--	--	1	5	--	--
Blackpoll Warbler	--	5	22	--	65	69	4	--	1	16	--	2
Pine Warbler	--	--	2	--	7	1	6	--	--	2	--	1
Prairie Warbler	--	7	21	6	36	12	39	--	--	2	--	9
Palm Warbler	7	22	42	1	7	122	12	--	1	--	--	3
Ovenbird	--	7	4	3	58	10	13	21	4	20	--	15
Northern Waterthrush	--	1	2	--	--	2	3	--	--	--	--	1
Louisiana Waterthrush	--	8	23	5	13	15	7	1	1	8	--	12
Kentucky Warbler	3	6	40	1	14	16	20	1	--	11	--	2
Connecticut Warbler	--	--	--	--	--	--	--	2	--	--	--	--
Yellowthroat	12	16	34	29	35	38	65	--	14	8	--	34
Yellow-breasted Chat	--	7	24	9	31	45	8	--	8	13	--	23
Hooded Warbler	--	4	10	4	35	24	28	16	3	20	--	11
Wilson's Warbler	--	--	1	--	--	--	--	--	--	1	--	--
Canada Warbler	--	--	--	--	1	6	1	1	1	4	--	8
American Redstart	1	6	10	--	10	1	3	--	4	4	--	9
House Sparrow	150	10	72	67	40	236	204	--	27	100	45	121
Bobolikn	16	235	6	12	4	41	13	--	--	--	--	110
Meadowlark	Com.	50	196	204	75	143	584	--	113	33	23	93
Redwinged Blackbird	Com.	65	245	67	115	234	358	--	33	40	12	64
Orchard Oriole	4	11	79	14	13	31	32	--	10	8	4	4
Baltimore Oriole	12	3	12	--	6	14	4	--	18	1	3	25
Rusty Blackbird	--	--	--	12	--	3	--	--	--	--	--	--
Common Grackle	Com.	150	1121	352	44	178	1191	--	182	150	116	519
Brown-headed Cowbird	Com.	23	205	55	35	84	253	--	8	40	1	25
Scarlet Tanager	--	12	19	--	43	32	22	7	12	15	--	13
Summer Tanager	2	6	42	16	14	38	21	4	11	10	2	4
Cardinal	25	20	218	126	30	218	301	1	22	50	47	140
Rose-breasted Grosbeak	1	12	51	--	11	26	46	7	5	6	2	41
Blue Grosbeak	1	--	9	1	--	20	3	--	--	--	--	--
Indigo Bunting	6	28	49	10	47	154	51	--	27	28	5	70
Dickcissel	3	18	--	--	2	--	--	--	1	--	--	--
Evening Grosbeak	--	--	--	--	--	7	--	--	--	--	2	--
Purple Finch	--	--	12	12	2	22	140	4	3	--	--	15
Pine Siskin	--	--	--	--	7	121	54	--	10	150	--	280
American Goldfinch	9	19	854	53	65	291	307	6	26	16	--	84
White-winged Crossbill	--	--	--	--	--	--	--	--	--	--	--	55
Rufous-sided Towhee	--	13	118	55	18	143	250	--	10	32	9	73
Savannah Sparrow	1	15	7	--	18	16	12	--	--	--	--	3
Grasshopper Sparrow	--	12	--	--	6	13	5	--	7	2	--	12
Vesper Sparrow	--	1	--	--	--	2	--	--	1	--	--	--
Lark Sparrow	--	--	--	2	--	--	--	--	--	--	--	--
Bachman's Sparrow	--	--	--	--	4	1	--	--	--	--	--	--
Slate-colored Junco	--	--	4	12	--	3	4	4	--	--	--	24
Chipping Sparrow	5	10	110	35	40	33	111	--	17	5	4	33
Field Sparrow	6	22	92	46	28	70	150	--	10	20	3	30
Harris' Sparrow	--	--	1	--	--	--	--	--	--	--	--	--
White-crowned Sparrow	3	7	3	3	--	3	12	--	11	--	--	3
White-throated Sparrow	10	15	63	56	20	78	241	--	13	3	11	16
Lincoln's Sparrow	--	--	--	--	1	--	--	--	--	--	--	--
Swamp Sparrow	--	--	--	--	--	7	11	--	--	--	--	1
Song Sparrow	--	--	--	7	11	46	156	--	14	13	2	100
TOTAL SPECIES	**86**	**122**	**132**	**96**	**131**	**158**	**144**	**49**	**112**	**116**	**47**	**139**

year. The Harris' Sparrow had been at the home of Mrs. Fanny Murphy all winter. Laurence Trabue — Compiler.

COOKEVILLE—The area covered was approximately the same as in previous years. The count was conducted 23 and 24 April, from 5:30 a.m. to 6:00 p.m. Partly cloudy and wind SW 12-15 mph. Participants: Beulah Clark, Dr. and Mrs. J. O. Cummins, Mr. and Mrs. Ralph Dunkel, Mr. and Mrs. James Haile, Roy Hinds, Dr. P. L. Hollister, Mrs. Amy Johnson, Bill Jones, Dr. and Mrs. S. L. McGee, Dr. and Mrs. J. T. Moore, Martin Novak, M. R. Richmond, Mrs. Thelma Tinnon, Robert Toline and George Williams.

CROSSVILLE—The count period for the annual state meeting, with headquarters at Cumberland Mountain State Park, was 7 and 8 May. The principal areas covered were Catoosa Wildlife area, Black Mountain, Lake Tansi and the area adjacent to the park. Approximately 175 members and guests participated in the count. Dr. James Tanner coordinated the compilation of the composite list just after lunch and just prior to adjournment on the last day of the count. On the day preceding the count period a Horned Grebe was observed by several individuals on Lake Tansi. Other high lights of the observations was the finding of the active nest of a Song Sparrow (See Round Table Note). Also, an active Red-cockaded Woodpecker nest was located.

CHATTANOOGA—The count was conducted on 1 May, from 4:45 a.m. to 7:30 p.m. The weather was cloudy, with intermittent light to heavy showers. The U. S. Weather Bureau at Lovell Field recorded 0.5 inches of rain for the day; temp. 58° - 77° F.

Those taking part in the count were: Jeff Albright, Bill Alford, Mr. and Mrs. T. S. Barr, Francis Barnwell, Benton Basham, Ross Brock, Ellen Cross, Maxine Crownover, Dr. C. F. Dean, Jon DeVore (compiler), Roy Evenson, James Garrett, Nat Halverson, Charles McCutchen, Harold Meadors, Mary Lou Meadors, Miss Mable Norman, William Phillips, Theo Rogers, Veta Sliger, Charles Sterchi, Chuck Turner, Adele West, E. M. West.

KNOXVILLE—The count was made on 24 April and the area, as usual, included all of Knox County. The total of 144 species compares with 146 last year. Thirty-nine chapter members in 15 parties took part. The sky was overcast during the morning and there was some wind during the middle of the day. Temperature high was 81. The more unusual species and the persons reporting them are: Little Blue Heron, Mr. and Mrs. Louis F. Smith, Mr. and Mrs. W. B. Williams, and Paul Pardue; Peregrine Falcon, James T. Tanner; Semipalmated Sandpiper, James M. Campbell; Philadelphia Vireo, Mrs. Lura James. J. B. Owen—Compiler.

COSBY—The area covered was in the Cosby Recreation area in the eastern end of the Smoky Mountains on 24 April. Weather — clear; four miles covered on foot from 7:00 a.m. to 3:30 p.m. One observer, Richard Nevius.

GREENEVILLE—The same area as usual in Greene County, 1 May; four parties from 6:30 a.m. to 5:30 p.m.; rain and temp. 66° to 72°. Participants: Mrs. Chester Darnell, Roger Miller, Richard Nevius (compiler), Miss Doris Parker, Harry Roberts, Mrs. Royal Spees and Karl Spees.

On 30 April Mrs. Darnell saw 17 Broad-winged Hawks in a group, flying north.

KINGSPORT—Our Spring Census was taken within the Christmas Count area for Kingsport, 14 May, as in other years, the latest dated T. O. S. spring count. The three American Widgeon were on a large pond, all that is left of the old fish hatchery. The 49 Wood Ducks were counted by Ann Switzer, who saw one adult with 22 ducklings and Charles Baker, who saw an adult with 25 ducklings. The two observations were made at least 10 miles apart. The Red-shouldered Hawks were identified by T. Finucane. Arthur Smith spotted the Broad-winged Hawks. Two of our observers spent the night on Bayes Mt. to hear the Great Horned Owl. We spotted the Sparrow Hawk only because we know where it has a nest. The Ruffed Grouse were drumming, on Bayes Mt., 9 a.m. The Loggerhead Shrike count (7) is noteworthy. Last year we had 3, and we had had about one shrike per 3-yr. period before 1965. There have been large flocks of Pine Siskins all winter on Bayes. The 150 listed were mostly seen elsewhere, however. The number of species of sparrows recorded on our spring census has diminished steadily over the past 25 yrs.; first we began losing the Savannah Sparrow and then the others in this order: Vesper, White-crowned, Bachman's. It is becoming more and more difficult to find the White-throated Sparrow after the middle of May, and Grasshopper Sparrows are getting rarer. Even the Field Sparrows are noticeably less abundant. — Thomas W. Finucane.

BRISTOL, Tennessee-Virginia—30 April and 1 May. Rain; 50° to 68° F. Nine observers in 6 parties. Fletcher Bingham (compiler), Rockwell Bingham, Rosemary R. Bingham, Marion E. Clark, Mrs. Earl Francisco, Earl Goad, Mrs. Max Miller, Max Miller, Marguerite Pflug.

ELIZABETHTON—The same area was covered as usual on spring counts. The count period was from 6:00 p.m. 30 April to 6:00 p.m. 1 May. Steady rain in the early morning, clearing somewhat later but a hard shower in early afternoon interfered with observations at times. The White-winged Crossbills had not departed from the Roan Mountain area, having been there throughout the winter. This was the first time they had been recorded on a spring count for the state.

Participants: Fred Behrend, Bill Bridgeforth, Mr. and Mrs. J. C. Browning, Ed Davidson, Mrs. H. Dillenbeck, Mrs. George Dove, Mr. and Mrs. Lee R. Herndon, Roby May, Mike Shell and Charles R. Smith (Compiler).

(THE SEASON - Elizabethton, continued from page 26).

Phillip Nelson, MC—Milligan College, PHL—Patrick Henry Lake, RM—Roan Mountain, WiL—Wilbur Lake.

Observers: FWB—Fred W. Behrend, WAB—W. A. Bridgforth, Jr., LB—Mrs. Louise Browning, HD—Mrs. Harold Dillenbeck, LRH—Lee R. Herndon, CRS—Charles R. Smith.

CHARLES R. SMITH, Route 2, Johnson City, Tennessee 37601.

ROUND TABLE NOTES

A WESTERLY NEST OF THE SONG SPARROW. — The slow advance westward and southward of the Song Sparrow *(Melospiza melodia)* from the valley of the Tennessee river in east Tennessee, has been watched with interest for years. During the breeding season it has been heard singing on the eastern slope of the Cumberland Plateau a number of times and on rare occasions on the Plateau itself, but no occupied nest there has as yet been reported and described. G. R. Mayfield reported it singing in breeding season at Cookeville and Tracy City (MIGRANT 24-25, 1953) and A. F. Ganier heard it singing in June a few miles north of Mayland.

On 7 May, 1966, the writer found a nest of this species containing five fresh eggs, in the lodge grounds of Cumberland Mountain State Park, a few miles south of Crossville, Tennessee. This nest was built on the ground, just within the edge of a large clump of mountain laurel (kalmia), and about ten feet from the edge of the park lake. I had watched what I later decided to be the male Song Sparrow at close range for about forty minutes during which time he neither sang nor paid me any heed. He moved about in an area of approximately four hundred square feet. Since I could hear a male singing about one thousand feet away, I thought the first bird to be a female, but it would not go to the nest. I started looking for the nest and finally flushed another bird which immediately started giving an alarm call. Going to where it first flew up, I found the nest. As the flushed bird was very upset, I withdrew and after about ten minutes, she returned to the nest. The first bird never uttered a sound and seemed undisturbed at my presence. The nest and eggs were inspected and verified next morning by Mr. Ganier and Mr. Parmer, we being among those attending the annual T. O. S. meeting being held at that time. Since Peterson's Guide does not describe the nest and eggs of the Song Sparrow, other books more complete in their coverage state that its nests are built in low shrubs and vines as often as on the ground and that the eggs have a blueish-white ground color, thickly sprinkled with specks of rufous-brown. Before and during incubation, the male usually can be heard singing throughout the day and not far from the nest. As of now, I believe this Crossville record is the most westerly for Tennessee.

MARGARET ROBINSON (Mrs. J. C.), Rt. 1, Box 91, Brownsboro, Ala. 35741.

LARK BUNTING IN TENNESSEE. — A Lark Bunting *(Calamospiza melanocorys)* came to the feeding area of Mrs. Walter McCrary of Woodbury around the first of April 1966. This feeding area was always well supplied with small mixed grain and sunflower seed. The Lark Bunting fed on the small grain that was scattered on the ground at the edge of the patio (within 20 feet of the house).

The bird often fed at the same time as three or four White-crowned Sparrows. The regular food supply, most likely, was the cause of these two species tarrying so late.

To remove all doubt as to the identity of this first record for Tennessee Mr. Albert F. Ganier, our Curator, collected the bird and preserved it as a study skin. It was collected on 22 April 1966 and he later reported that the specimen was a female, not in breeding condition and that the measurements were: length—157 mm, wing—81 mm and tail—62 mm. He has searched the literature and found that only five have been reported east of the Mississippi River that were verified by collected specimens. These were as follows: Lynn, Mass., 5 Dec. 1877; Long Island, N. Y. 4 Sept. 1889; Charleston, S. Car., 19 April 1895; Lexington, Va., 11 Feb. 1932 and Tybee Island, Ga., 27 June 1952.

Lark Buntings are birds of the western plains. They breed principally in the prairie region between the Missouri River and the Rocky Mountains and from northern Texas and western Oklahoma to the southern portions of Alberta, Saskatchewan and Manitoba. They winter in Mexico and the southern portions of the states bordering on Mexico.

MRS. WALTER McCRARY and MARY WOOD, 2612 Barton Ave., Nashville.

EVENING GROSBEAKS IN NASHVILLE.—On 28 November I added a new bird to my life-list of species. A pair of Evening Grosbeaks were feeding on the seed of a low maple tree near my window. My wife and I watched these birds for at least thirty minutes. They finally flew down to a small water container not more than thirty feet from the window where we were. These were a mature male and a female. The color variation between the male and female is as great as that between the male and female Cardinal, but both are gorgeous birds, especially the male with the sunlight falling full upon his black, white, and lemon-yellow plumage.

This is not the first record of the Evening Grosbeak in the Nashville area. On 14 November, 1950 Mrs. Katherine Goodpasture reported ten seen at Basin Springs. During February, 1960, and up to 15 March, two were reported by Mr. John McSween, at Kingston Springs. 17 November, 1961 Mr. E. C. Tompkins saw two at his home in Nashville, and in the following April saw another. And on 4 January, 1962 Mr. Jesse Wills of Nashville saw one at his bird feeder. Other areas of the state have reported the Evening Grosbeak more frequently and in considerable flocks. These reports can be found in back numbers of the "Migrant".

B. H. ABERNATHY, 6316 Bresslyn Road, Nashville 37205.

WHIP-POOR-WILL FORAY. — On 2 June 1966 when the moon was full, seven observers left Elizabethton and traveled across the Holston Mountain in the direction of South Holston Lake. Road conditions prevented our reaching our objective, therefore, we stopped short of our usual destination by about six miles. After eating our picnic supper before dusk, we awaited the first Whip-poor-will call, which occurred at 8:00 p.m. After listening for a while longer we began the return journey. Every half mile, as measured by the car speedometer, we stopped, listened and counted Whip-poor-will calls. We endeavored to distinguish those far or near, loud or soft and rapid or weary, the distant calls from those near at hand. It was a stimulating experience in auditory discrimination. We actually saw two Whip-poor-wills in front of the car headlights. Over a ten mile stretch of woodland road we heard 39 Whip-poor-wills call. We returned to Elizabethton about 10:00 p.m. The number compares favorably with numbers counted in previous years over the somewhat longer route.

MRS. HAROLD DILLENBECK, 1314 Seminole Drive, Johnson City.

OBITUARY

HAROLD GARLINGHOUSE 1910 - 1966

TOS lost one of its most faithful and active members in the passing on 12 April of Harold C. Garlinghouse. His death is a very personal loss to all those who had grown to know and love him.

Harold's interest in nature developed at an early age, and he became particularly interested in birds during his years as a Boy Scout. He spent as many hours out of doors as time would permit. He was an active worker in the Knoxville Chapter and the State organization — always willing to help carry on the work. Christmas Counts in the Great Smokies usually found him working the Appalachian Trail at levels above 5000 feet.

Harold was an excellent bird student, responsible for many accurate records, and no trail was ever too long or day too cold or wet to keep him from a bird count. His love for birding took him beyond the boundaries of our State and he had many friends in the Carolina Bird Club and Kentucky Ornithological Society.

Harold's passing has left an unfillable void. His warm friendliness and quiet dignity will live always in the hearts of those of us who were fortunate enough to have walked a trail with him.

(ANNUAL MEETING 1966 - continued from page 19).

appreciation for his presence here and the presentation of his delightful address on Saturday evening;

And that we thank all our officers and members for their efforts for the Society this year, especially mentioning our President, Mrs. Garlinghouse.

Ruby McWhorter
John S. Herbert
Susan M. Bell

Mr. Ganier introduced the speaker of the evening, Dr. Burt L. Monroe, Jr. Dr. Monroe transported us, via word and color slides, to the New Zealand and Australia countryside, with emphasis on birds of these lands.

Dr. Arlo Smith extended an invitation for T. O. S. to be guests of the Memphis Chapter for the 1967 meeting.

At noon on Sunday, birders gathered on the terrace for compilation of a composite list. Total count of species seen was 131.

The Society was honored to have serveral guests in addition to our speaker and his wife. Miss Kathy Wade, of the Tennessee Game and Fish Commission, joined the Saturday morning group going to Catoosa, and Mr. and Mrs. E. W. Steffen, of Cedar Rapids, Iowa, were special guests of J. B. Owen. Mr. Steffen is an artist, and he graciously exhibited his beautiful and accurately-detailed water color paintings of birds.

Also present were two of our beloved founders, Mr. Dixon Merritt and Mr. Albert Ganier, whose presence is always a real inspiration to the Society.

Respectfully submitted,
MAXIE SWINDELL, 3021 Sullivan Road, Knoxville, 37921

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Birds

THE MIGRANT

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DEVOTED TO TENNESSEE BIRDS

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Most articles published in THE MIGRANT are written by T. O. S. members and comprise their major contribution toward carrying out the Society's purposes. The Editor, like other officers, receives no remuneration for the considerable work he does so the proper preparation of copy will help toward reducing his work. All manuscript should be typed on one side of 8½x11 paper, double spaced, and with good margins. Provide a concise, meaningful title and, where needed, subtitles within the text. Footnotes are not used. Bibliography, when used, should be brief. Examine past issues of THE MIGRANT and follow the style there used, noting that "main articles" and Round Table items are set up differently. Acceptable for inclusion are articles describing the habits of birds as noted from original observations in Tennessee or adjacent areas. Reports on occurrence of unusual species should give full data on the observation so that the record may be evaluated. The value of this publication depends upon the correctness of what it presents so accuracy of statement and identification are obvious requirements. In addition to such articles, are reports on our regularly scheduled projects, such as Spring Migration, Spring Field Counts, Breeding Bird Counts, Hawk Migration, and the Christmas Census. Each of these are reported upon by duly appointed leaders and it is their duty to see that questionable records are eliminated.

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FALL BANDING AT TWO JAYS SANCTUARY, 1965

KATHERINE A. GOODPASTURE

Concentrated fall banding at Two Jays Sanctuary, 1965, compared with two previous years, gave a wider span of observation and an increased number of records.

Nets were set in the narrow floodplain between the South Harpeth River and a corn field at the approach to the Sanctuary. Johnson grass, ragweed, various tall composites, low floodplain growth of maple, sycamore, box elder, elm, sumac and willow offered attractive food and cover for a good but not spectacular flow of fall migrants. Quick heavy showers fell on three occasions but weather fronts did not move so as to build up heavy flights and banding records tend to reflect a rather even movement through the area.

Thirteen nets were in operation on a part or all of 30 days from 27 August through 17 October. Banding days were concentrated about the weekends but active intervals sometimes consisted of 3, 4, or 5 successive days.*

Thirteen hundred forty-seven (1347) birds of 75 species were banded; sixty-two of these repeated in the nets and 27 additional birds yielded return records of previous banding operations at the Two Jays station. Review of details of 1965 banding is of some interest but reveals no startling or unexpected record and few distinctive ones.

Following are summary comments on several families and species. All records presented are banding records. The number in parentheses after a named species indicates the total number of that species banded during the entire operation.

Flycatchers. E. Kingbird, 17 Sept., and Gr. Crested, 28 Aug., were represented by one bird each. Acadians (15) were banded from 28 Aug. - 24 Sept.; Traill's (11) from 28 Aug. - 18 September. Wood Pewees (15) were banded fairly regularly through 5 October. It was somewhat unexpected to get Least Flycatchers (9) from the first week in September into the first week in October. There seemed to be a movement of Phoebes in mid-October and six Yellow-bellied Flycatchers were banded between the third and the twenty-fifth of September.

Wrens. Single Bewick's, House and Winter Wrens were banded between 4 and 9 October. Three Carolinas were banded earlier.

Mimics. Five of 24 Catbirds were banded on 16 Sept., 8 on 24 Sept., 1 on 16 October. No movement of Brown Thrashers was evident.

Thrushes. Veeries (8) came early in September, the first two, 3 Sept., set an early date for the area. Swainson's (11) were banded 4 Sept. - 6 Oct.

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* Help by the following persons during this operation is gratefully acknowledged: Mike Bierly, Ruth Castles, A. F. Ganier, Virginia Hagan, Louise Jackson, Amelia R. Laskey, Fannie Murphy, John Ogden, Henry Parmer, and Jennie Riggs.

Three Hermits, 16 Oct. were the first for the season.

Vireos. Twenty-three White-eyed and 3 Red-eyed Vireos were banded. The only species missing from the 1965 list, but banded in 1964 were Solitary, Yellowthroated, and Philadelphia Vireos.

Warblers. Two hundred sixty-five (265) warblers of 23 species were banded.

A surprising movement of Northern Waterthrushes was underway when the operation was begun. A total of 49 of the species was banded 28 Aug. - 8 Oct. with peak numbers occuring the last week of September and the first week of October.

Twenty-four of 41 Ovenbirds were banded the first week of October. Two Orange-crowned and 3 Nashville Warblers were taken after 3 October.

Seven Mourning Warblers were banded between 5 Sept. and 5 October. These records are of especial interest since this species is rarely observed in the field.

Fringillids. An early Rose-breasted Grosbeak (52) was banded 5 Sept. with peak incidence during the first week of October.

Five hundred eighty-six (586) Indigo Buntings represented 43% of all birds banded. This was the only species banded every day nets were operated. A peak of 50 was set 5 October.

Except for a single Field Sparrow, 18 Sept., this family did not appear on the list until 4 October. Of interest was a total of 51 Swamp Sparrows with 15 banded 16 October. A Fox Sparrow banded 4 October appears to establish a new early record for the species in the Nashville area.(1)

Twenty-seven birds banded previously at Two Jays were recaptured 1965. Thirteen individuals were of 6 species considered present in the area the year around: 1 Cardinal banded 4 years previously; 1 Downy, 1 Goldfinch, 1 Carolina Wren, 1 Chickadee banded 2 years before; 3 Cardinals, 1 Downy, 1 Carolina Wren, 1 Chickadee, 2 Titmice banded 1 year before.

Thirteen individuals of 3 species we may consider to have made either 1 or 2 migratory flights entirely out of the area and back again: 2 Indigos banded in the fall of 1963 returned in the fall of 1965; 1 Acadian, 1 White-eyed Vireo, 9 Indigos banded in the fall of 1964 were recaptured in the fall of 1965. One Prothonotary banded in the spring of 1965 was retaken in the fall of the same year.

Eleven species yielding the high banding scores were: Indigo Bunting, 586; Cardinal, 57; Rose-breasted Grosbeak, 52; Swamp Sparrow, 51; Goldfinch, 51; Northern Waterthrush, 49; Ovenbird, 41; Yellowthroat, 37; Magnolia Warbler, 36; White-throated Sparrow, 35; Tennessee Warbler, 31.

Eliminating the above 11 species, following is a complete list of species banded with the total number of each: Bobwhite 1, Yellow-billed Cuckoo 3, Black-billed Cuckoo 1, Screech Owl 3, Ruby-throated Hummingbird 17, Red-bellied Woodpecker 2, Yellow-bellied Sapsucker 1, Downy Woodpecker 5, E. Kingbird 1, Gr.-crested Flycatcher 1, E. Phoebe 7, Yellow-bellied Flyc. 6, Acadian Flyc. 15, Traill's Flyc. 11, Least Flyc. 9, Wood Pewee 15, Blue Jay 2, Carolina Chickadee 15, Tufted Titmouse 6, Brown Creeper 1, House Wren 1, Winter Wren 1, Bewick's Wren 1, Carolina Wren 3, Mockingbird 2, Catbird 24, Brown Thrasher 4, Wood Thrush 3, Hermit Thr. 3, Swainson's Thr. 11, Gray-cheeked Thr. 6, Veery 8, Ruby-crowned Kinglet 2, Loggerhead Shrike 2, White-eyed Vireo 23, Red-eyed Vireo 3, Black-and-white Warbler 7, Prothonotary W. 3, Worm-eating W. 1, Golden-winged W. 1, Blue-winged W. 1, Orange-crowned W. 2, Nashville W. 3, Myrtle W. 2, Black-throated-Green W. 2, Chestnut-sided W. 4, Bay-breasted W. 2, W.

Palm W. 1, Kentucky W. 8, Mourning W. 7, Y-br. Chat 15, Wilson's W. 4, Canada W. 6, Am. Redstart 2, Baltimore Oriole 1, Br-headed Cowbird 1, Summer Tanager 5, Rufous-sided Towhee 2, Slate-col. Junco 3, Chipping Sparrow 1, Field Sp. 2, Fox Sp. 2, Lincoln's Sp. 5, Song Sp. 9.

DISCUSSION

Some comparison of records presented above and those established in 1964 may be made. In 1964 nets were operated on 14 days between 3 September and 11 October. For comparison only those 1965 records falling on the 23 days of operation within the same calendar period will be considered.

In 1965 the first Tennessee Warbler was banded 12 days later than in 1964; the first Magnolia 5 days later than in 1964. Peak date for Tennessee was a week later in 1965. Peak dates for Magnolia were about the same for both years. At least 1 Tennessee was banded every day the nets were operated in 1964. In 1965 Tennessees were banded on only 11 out of 23 banding days in the same calendar span. More Tennessee and Magnolia Warblers were banded during 14 days in 1964 than during 23 banding days, 1965. Peak day for Magnolias, 3 October, 1964, yielded 20 banded; peak day, 1965, 2 October, yielded 7.

In 1964, except for a single bird banded 3 October, passage of Northern Waterthrushes appeared to terminate about 20 September, with peak banding day on 6 September. In 1965 more Northern Waterthrushes were banded than any other warbler with peak day 24 September.

At first glance these notes may seem to indicate a generally later movement of warblers in 1965, and in some cases a lighter movement. I must confess to the "feel" of such a generality but one must be cautious in drawing this conclusion. Quirks of wind and weather may have resulted in a more even flow or in an overflight, in low concentrations of moving birds or an hiatus.

In 1964, 1477 net-hours yielded 211 Indigo Buntings or one Indigo every 7 net-hours; in 1965, 2902 net-hours yielded 542 or 1 Indigo every 5 net-hours. Peak days were 26 September, 1964 and 5 October, 1965. Since the same calendar span during both years is considered the movement of Indigos through Two Jays area appears to have been slightly heavier and slightly later in 1965 but the differential does not seem great enough to characterize the whole fall movement.

One cannot separate resident individuals from non-resident ones during migration except by banding. The only Prothonotary Warbler banded was taken 29 August; a resident one banded 4 April, repeated 3 September. Blue-winged and Worm-eating Warblers were banded only on August dates. Conspicuous by its absence from September and October banding lists in 1963, 1964, and 1965 was the Louisiana Waterthrush. This species was neither heard, seen, nor banded 27 August through 17 October. My latest overall banding date for Louisiana Waterthrush is 21 August at Basin Spring which is in the same general area as Two Jays. In both 1964 and 1965 Northern Waterthrushes were migrating significantly through the area when fall banding was begun. These notes may be straws in the autumn wind to indicate that local Louisiana Waterthrushes migrate out of the area late in August and they make one suspect that the fall migratory movement for the species through this area may be largely completed quite early. These records also indicate that the Northern Waterthrush is an earlier fall migrant than most field observers record and that it moves through in greater numbers than we are usually aware.

In 1965 of 1347 banded birds, only 3 were Red-eyed Vireos; in 1964 only 5 of a total of 702 birds were that species. This is surprising since the Red-eyed Vireo is a widely spread, populous breeding species. In fall banding at Two Jays there has been no reflection of the heavy migratory flight of Red-eyed Vireos that passes through Middle Tennessee as evidenced by occasional tower casualty lists.(2) I have no explanation for this. Some day we may have a Red-eyed Vireo banding day and who knows but that its pattern may fit perfectly over a very particular ESSA satellite weather picture.

These banding records stand as hard core facts but never alone. When the Two Jays area is viewed as but a pinpoint in the Atlantic Flyway we see this report as a small, small piece of a vast and unfinished mosaic that will some day become a picture of migration through that flyway. In the meantime we can combine records obtained by this technique with those of field observers and television tower casualty studies in an attempt to better see and understand the movement and distribution of bird life within and across Middle Tennessee.

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FALL MIGRATION OF THE ORCHARD ORIOLE

By KENNETH H. DUBKE

The Orchard Oriole *(Icterus spurius)* along with the Yellow Warbler *(Dendroica petechia)* and the Louisiana Waterthrush *(Seiurus motacilla)* among other species would be unanimously considered common summer species across the breadth of Tennessee at lower elevations by the average field worker, but when you ask these same observers what happens to these birds at the termination of the nesting season the reply in unison appears to be the simple answer they tend to disappear. Oberholser (1923) was one of the first to alert us to the oriole's early departure. Lincoln (1935) also calls attention to the fact this species migrates early.

During the fall of 1965, while engaged in consistent field work for shore-birds with Jon DeVore, Chattanooga, it was our privilege to observe a migration of Orchard Orioles. As the author has been rather active in East Tennessee since 1957 it was a surprise to note what appeared to be a small movement of ten birds on 15 July. With the thought in mind of recording the last individual of the year particular attention was given to numbers, sex and dates to ascertain correct data. Then, for more background, Bent (1958) was consulted and with this fragmentary information it appeared that their fall movement was somewhat known. Reference was also made of other standard works in the southeast and it was noted they presented very meager or no detail on their fall migration. Next, THE MIGRANT was combed and only one comment was located where Warriner (1935) asked the question: "What becomes, more particularly, of the Orchard Orioles in late summer? This bird arrives in the Mid-South in April, and nests here. During the month of June it is common along the roadsides, in yards, and orchards almost everywhere. Suddenly, say the last of July or sooner, the bird disappears. Where does he go?" The next step then was to follow up my search with a series of letters and numerous conversations, but with no one able to offer much detailed information. This article then is an attempt to reply to Mr. Warriner's question thirty years later with a brief summary of what we know of the fall migration of the Orchard Oriole.

CHATTANOOGA DATA

The Savannah Bay (or Savannah Flats) area would best be described as a broad, flat, plain where the fluctuating level of TVA's Chickamauga Lake makes a favorable feeding area in late summer for wading birds. It is surrounded by some sections of woods, some open well grazed pasture and old overgrown fields with blackberries, weeds and small trees. The area where the orioles were located most regularly consisted of second growth trees along the fence rows, clumps of sassafras, cedars, blackberries, and between these clumps grass very closely grazed by cattle. Other areas were checked for the birds, but this last named area is where they were most often located. Field work in the area commenced in early July and continued at short intervals into October with observations usually being made in the afternoons.

Fall Movement of Orchard Orioles at Chattanooga 1965

Date	Individuals	Date	Individuals
15 July	—10 includes 1 ad. male	14 August	—none noted
18 July	— 1	15 August	— 7 includes 1 ad. male
1 August	—11	19 August	—22
4 August	—none noted	22 August	—none noted
13 August	— 4	25 August	— 9

All the above records refer to females or immature birds unless otherwise noted. No orioles were found after 25 August.

This appears to be the only recorded fall movement of the Orchard Oriole in the Chattanooga area.

OTHER TENNESSEE DATA

The only other information available that appears to reflect a known movement of the species in the state is that recorded by Howell and Monroe (1957) for Knox County. Here by showing number of trips in July (33) and August (22); birds per trip in July (4.8) and August (1.6); number of trips contacted in July (27) and August (10); and finally percent of trips contacted in July (82) and August (45) we have a fair picture of the orioles movements from 1947 through 1953 when these data were assembled.

In contrast with this rather well documented information it's interesting to note the apparently negative results we glean from other sections of the state. From the Tri-cities area of Bristol, Kingsport and Johnson City (including Elizabethton) the most we find are a few references to late dates and Greeneville doesn't seem to offer much more. Traveling westward our next point of reference is Murfreesboro where Henry J. Todd, Jr., lives and who had been very active in the field for over forty years commenting that he doesn't recall witnessing a fall movement (verbal comm.) In Nashville Henry E. Parmer has recently completed a comprehensive survey of their bird distribution and states (pers. comm.) they have no known records of a mass movement. When the question was put to veteran Ben B. Coffey, Jr., Memphis, he replied "I don't remember any late summer or fall migration of Orchard Orioles. They just seem to fade away, early." (letter 28 Oct. 1965).

It is especially interesting to note the replies from both Nashville and Memphis because these two chapters have both been diligently recording observations longer than any others in the state.

DATA FROM MISCELLANEOUS STATES

Mengel (1965) in his excellent summary on this species in Kentucky gives a good account of what is known there and I quote him:

Fall.—The Orchard Oriole seems to become rare or very rare by the end of August. This apparent disappearance of the species in late summer is something of a mystery, and the actual time of departure is not certain. Some birds surely migrate early, since I have found them in numbers in Veracruz, Mexico, in mid-July. Careful watch should be kept in August to determine when the species can truly no longer be found.

Little information is to be found published regarding flock size and movements in the states of Virginia, North and South Carolina, Georgia and Florida. From Virginia, Dr. J. J. Murray writes (letter 17 May 1966) ". . . we have very little definite data." Francis M. Weston after compiling 48 years of records in Northwestern Florida (1965; letter 20 May 1966) has nothing more to contribute in addition to what Bent (1958) had quoted from him. When the question was put to long time Carolina observer B. Rhett Chamberlain for details he had nothing more to add (verbal comm.). Imhof (1962) for Alabama gives a little more information: ". . . fall, 100, July 15 to 17, 1931 . . .". Whether this has to do with one flock for a couple of days or several he doesn't elaborate.

Thomas L. Burleigh lived for eight years at Gulfport, Mississippi, collecting and preparing many birds from Hancock, Harrison and Jackson Counties for the U. S. Fish and Wildlife Service and wrote a report (1944) on all species found in the area. He collected only one fall specimen (10 Sept. 1937) and said ". . . Departure in the fall is rather early, for by early in August only an occasional bird is seen; Sept. records few. . . . the latest Sept. 10, 1937.". Stewart and Robbins (1958) do mention small movements recorded in the Maryland and Washington, D. C., area with a normal period from 1-10 July to 20-30 August.

A good source of information has been migration summaries in recent issues of **Audubon Field Notes.** Elaborating on the 1964 season Goodwin (1965) refers to ". . . a flock of 150 seen at Point Pelee (Ontario) on July 16 . . ." and Webster (1965) mentions first transients noted at Houston, Texas, on 10 July and Bayton, Texas, on 13 July and a peak migration date in the Nuecus, Texas area on 28 July. Also referring to 1964 Baumgartner (1965) mentioned ". . . a definite migratory wave of Orchard and Baltimore Orioles . . . at Oklahoma City on Sept. 5 . . .". It's interesting to note in addition to this tendency to flock and migrate early in the season the record of a ". . . flock of 12 Orchard Orioles on the Tamiami Loop Road (Florida) . . . on Oct. 17 . . ." cited by Cunningham (1965) for this same year.

There didn't appear to be as much comment on the 1965 season, however, Webster (1966) refers us again to the Nueces River and the excellent results obtained there by Gene W. Blacklock on his 25 acre census plot. By watching consistently this small area very closely Blacklock is demonstrating that migration is indeed under way early in the season.

DISCUSSION

It is apparent from the foregoing that the Orchard Oriole appears to flock and migrate soon upon the completion of the nesting season. Also, it should be noted this is not a completely exhaustive search of all the material on the subject or a comprehensive questioning of all field workers who could contribute on a project of this scope. What has been presented shows in a general way our present knowledge and stresses the apparent tremendous gaps as to what we can learn. It seems that very few migrating flocks are observed. This can possibly be accounted for by the fact that many amateur observers decrease their fieldwork after the big spring migration passes through and with a further let up when the birds become more sedentary while nesting and recording still less observations after the middle of July when singing tends to cease. With the weather usually hot and varying dry or humid, the birds molting, less active, and less conspicuous with many drab young about it certainly takes a much higher degree of motivation to "follow the birds". However, the results are most enlightening for those that do by revealing many little known facts pertaining to their lives that are yet to be discovered. This is the case with the common nesting Orchard Oriole, as well as many other species, and where the amateur can continue to add immensely to the knowledge of birds.

ACKNOWLEDGMENT

Appreciation is here expressed to Mr. Albert F. Ganier and Mrs. James C. Robinson for furnishing help with some of the references. Also, the correspondents mentioned in the text who answered my inquiries for assistance.

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BLACKBIRD - STARLING SURVEY

by **EUGENE LEGLER, JR.**

Tennessee Game and Fish Commission, Nashville

A Blackbird - Starling Questionnaire was mailed on 5 November, 1965, to all Game and Fish Commission officers. Information was received for 81 of the 95 counties. The purpose of the study was to provide background material for the Blackbird Research Conference held in Atlanta, Georgia.

The objectives of the Tennessee Blackbird - Starling survey were to determine:

1. Population status
2. Roost locations
3. Urban and rural roost problems
4. Crop and feed lot damage complaints

A total of 155 roosts were reported with a "guesstimated" population of 30,125,000 blackbirds and Starlings. Breakdowns by region and county are as follows:

Region and County	**Roosts**	
	No.	**Size**
EAST		
Anderson	3	500
Blount	4	5,000
Bradley	2	20,000
Carter	4	15,000
Cocke	1	5,000
Grainger	5	10,000
Hamblen	1	2,300,000
Hamilton	2	15,000
Jefferson	5	25,000
Knox	1	1,000
Loudon	4	16,000
McMinn	14	20,000
Monroe	3	6,000
Polk	2	10,000
Rhea	5	25,000
Washington	2	200,000
TOTAL	58	2,673,500
WEST		
Benton	4	800,000
Dyer	6	100,000
Fayette	5	10,000,000
Hardeman	1	50,000
Henderson	1	50,000
Lake	2	1,500,000
McNairy	1	1,000,000
Madison	1	5,000
Shelby	6	12,000,000
Tipton	1	75,000
TOTAL	28	25,580,000
STATE-WIDE TOTAL	155	30,125,000

Region and County	**Roosts**	
	No.	**Size**
PLATEAU		
Cumberland	10	11,000
Grundy	1	50,000
Marion	2	6,000
Sequatchie	4	85,000
Van Buren	1	10,000
TOTAL	18	162,000
MIDDLE		
Bedford	4	1,000,000
Cheatham	1	60,000
Clay	5	8,000
Coffee	1	10,000
DeKalb	2	3,000
Dickson	2	3,000
Franklin	3	150,000
Giles	1	4,000
Houston	1	2,000
Jackson	5	2,000
Lawrence	1	5,000
Lincoln	2	10,000
Marshall	1	275,000
Maury	1	10,000
Mongomery	5	18,000
Perry	2	1,000
Pickett	1	5,000
Putnam	1	1,000
Rutherford	4	?
Sumner	1	100,000
Warren	2	20,000
White	1	500
Williamson	2	12,000
Wilson	2	10,000
TOTAL	51	1,709,500

Twenty-seven roosts (17.4 per cent) were located in urban areas and 128 (82.6 per cent) were reported in rural areas. A total of 18 Game and Fish Officers reported urban roosts. Twelve (12), or 66.7 per cent, indicated that the roosts created a problem; however, control measures were reported by only three of the officers. The control in two cases was reported as "shooting into the roosts and noise making" in the third case. The latter control was considered a success after two years of effort. The other two reports indicated no noticeable effect on the blackbird - Starling population. In all three reports, the property owner was responsible for the control work.

Fifty Game and Fish Officers reported rural roosts. Sixteen (16), or 32 per cent, indicated that the roosts created a problem. Control measures were reported by six of the officers. Four (4) of the control measures involved shooting, one firecracker ropes and one shellcrackers. Success of the control methods was considered temporary in three cases and no noticeable effect on the other three reports. Landowners were responsible for four of the control attempts and Federal authorities in two cases. The State assisted one landowner.

A total of 73 Game and Fish Officers answered the crop damage complaint question with 31, or 42.5 per cent, indicating some degree of damage. Corn was the number one crop damaged, appearing on 21, or 67.7 per cent, of the crop damage complaints. Eight, or 25.8 per cent, of the officers listed milo while one complaint each was recorded for rice, gardens, fruit trees, peas, beans, peanuts and lespedeza. Of the 68 responses to the feed lot damage question, 16, or 23.5 per cent, indicated some type of damage in their area.

SUMMARY

The data presented is admittedly rather crude; however, it does point out that a blackbird-Starling problem does exist to some degree in Tennessee. Whether this problem is new and on the increase or is an old stagnant situation being stimulated by surveys and publicity is unknown. Of the 28 urban - rural roost problems cited, 9, or 27.3 per cent, were involved with control measures. All controls were classified as "scare devices". Little or no help was given by the State or Federal agencies. Crop and feed lot damage reports appear to be numerous as evidence by the 42.5 per cent and 23.5 per cent positive responses.

TENNESSEE GAME AND FISH COMMISSION, 706 Church St., Nashville.

THE SEASON

NASHVILLE. — Grebes-Hawks: Pied-billed Grebe: 30 July (1) PWP pond (LOT). Great Blue Heron: scarce. Little Blue Heron: 6 Aug. (22) ACM (MB). Common Egret: no reports. Blue-winged Teal: 13 June (1) male BL (HEP), 15 July (4) RL (LOT). Wood Duck: again raised young RL (MCW) and TJ's (HEP). Broad-winged Hawk: (2) PWP all summer (AV) and (2) adults with flying young over BS during July (KAG).

Plover-Terns: Upland Plover: 17 Aug. (2) calling over home (HCM). Spotted Sandpiper: 11 Aug. (1) HR (LOT). Solitary Sandpiper: 19 Aug. (1) BL (HEP). Least Sandpiper: 12 Aug. (2) BL (HEP, HCM). Wilson's Phalarope: 12 Aug. (1) BL (HEP). Terns: no reports.

Nighthawks-Larks: Common Nighthawk: 31 Aug. (150) SHV (KAG), only a few seen in the TJ's area during the late Aug. migration. Red-headed Woodpecker: two successful nests in CP, plus a second brood for one of these that left the nest on 1 Sept. (HCM). A successful July nesting WM (AV). Eastern Kingbird: nest reported in EWP (AV) and BL (HEP). Yellow-bellied Flycatcher: 24 Aug. (1) home (KAG). Traill's Flycatcher: 25 Aug. (1) TJ's (KAG), 3 days earliest ever. Least Flycatcher: 25 Aug. (1) TJ's (KAG), 5 days earliest ever. Horned Lark: 11-18 June, (2) EWP (AV, LOT).

Swallows-Sparrows: Tree Swallow: 14 Aug. (15) TJ's (HEP). Rough-winged Swallow: 21 July (25) BL (HEP). Cliff Swallows: many nest under the bridges on RR, as usual. Purple Martin: many nests reported, but numbers still down. Golden-winged Warbler: 26 Aug. (1) TJ's (KAG). Northern Waterthrush: 27 Aug. (1) TJ's (KAG). Louisiana Waterthrush: 14 Aug. (1) BS (KAG). Connecticut Warbler: late (1) 14 May WM (AV). Wilson's Warbler: 27 Aug. (1) TJ's (KAG). Canada Warbler: 20 Aug. (3) EWP (AV). Orchard Oriole: 24 Aug. (3) home (AV). Blue Grosbeak: 20 Aug. (2) adult feeding (3) young EWP (AV). 29 Aug. (13) scattered in Cannon County (MCW). Lark Sparrow: 8 Aug. (1) home (KAG).

Locations: ACM—Ashland City Marsh, BL—Bush Lake, BS—Basin Springs, CP—Centennial Park, EWP—Edwin Warner Park, HR—Harpeth River near Interstate 40, PWP—Percy Warner Park, RL—Radnor Lake, RR—River Road, SHV—South Harpeth Valley, TJ's—Two Jays Sanctuary, WM—West Meade.

Observers: MB—Mike Bierly, KAG—Katherine A. Goodpasture, HCM—Harry C. Monk, HEP—Henry E. Parmer, LOT—Lawrence O. Trabue, AV—Alvin Vincent, MCW—Mary C. Wood.

HENRY E. PARMER, 3800 Richland Ave., Nashville 37205.

CHATTANOOGA—Grebes-Hawks: Pied-billed Grebe: 4 Aug. (1) CD, 21 Aug. (1) SB. Great Blue Heron: 17 July (1) SB, 28 Aug. (1) SB, 29 Aug. (1) SB. Little Blue Heron: 30 July (3) SB, 6 Aug. (11) SB, 7 Aug. (7) SB, 15 Aug. (5) SB, 20 Aug. (6) SB, 21 Aug. (9) SB, 28 Aug. (3) SB, 20 Aug. (2) SB. Common Egret: 17 July (3) SB, 24 July (4) SB, 30 July (1) SB, 6 Aug. (3) SB, 7 Aug. (3) SB, 15 Aug. (1) SB, 20 Aug. (2) SB, 28 Aug. (1) SB, 29 Aug. (1) SB, 31 Aug. (1) D. Yellow-crowned Night Heron: 17 July (1) AM. Mallard: 1 July (8) HCP, 29 Aug. (1) VOW. Black Duck: 28 Aug. (2) SB. Blue-winged Teal: 20 Aug. (1) SB, 21 Aug. (5) SB. Wood Duck: 3 July (7) MP, 4 July (1) CG, 17 July (2) SB, 24 July (3) VOW, 6 Aug. (3) SB, 7 Aug. (2) SB, 21 Aug. (5) VOW, 28 Aug. (4) SB, 29 Aug. (4) SB. Turkey Vulture: 4 July (2) CG, 10 July (1) H, 7 Aug. (1) SB, 15 Aug. (1) SB, 20 Aug. (3) SB. Black Vulture: 4 July (2) CG. Cooper's Hawk: 4 July (2) CG. Red-tailed Hawk: sporadic in small numbers, high count 15 Aug. (2) SB and 20 Aug. (2) SB. Red-shouldered Hawk: 23 July (1) CD, 31 Aug. (1) D. Broad-winged Hawk: 25 July (1) SM.

Plovers-Terns: Semipalmated Plover: 20 Aug. (3) SB, 28 Aug. (10) SB (JD). Common Snipe: 15 Aug. (1) SB, 21 Aug. (1) SB, 28 Aug. (1) SB. Spotted Sandpiper: 24 July (1) SB, 7 Aug. (2) SB, 15 Aug. (10) SB, 20 Aug. (1) SB, 21 Aug. (1) SB, 28 Aug. (3) SB, 29 Aug. (1) SB. Solitary Sandpiper: 10 July (3) AM, 11 July (4) AM, 16 July (1) AM, 17 July (5) SB, 23 July (3) AM, 24 July (8) SB, 7 Aug. (2) SB, 20 Aug. (2) SB, 28 Aug. (2) SB. Willet: 20 Aug. (1) SB (JD, JG, DWKB). Greater Yellowlegs: 20 Aug. (1) SB. Lesser Yellowlegs: 20 Aug. (5) SB, 21 Aug. (5) SB. Pectoral Sandpiper: 17 July (1) AM, 23 July (1) AM, 24 July (2) SB, 7 Aug. (4) SB, 15 Aug. (6)

SB, 20 Aug. (39) SB (JD), 21 Aug. (17) SB, 28 Aug. (14) SB. Least Sandpiper: 24 July (2) SB, 7 Aug. (2) SB, 20 Aug. (2) SB, 2 Aug. (5) SB, 28 Aug. (11) SB, 29 Aug. (9) SB. Semipalmated Sandpiper: 20 Aug. (5) SB, 21 Aug. (6) SB, 28 Aug. (3) SB. Western Sandpiper: 20 Aug. (2) SB, 21 Aug. (1) SB, 28 Aug. (2) SB. Buff-breasted Sandpiper: (See Round Table Notes). Common Tern: 30 July (1) SB. Least Tern: 1 July (2) CD. Black Tern: 8 Aug. (4) CL, 15 Aug. (21) SB, 20 Aug. (63) SB, 21 Aug. (47) SB.

Owls-Wrens: Great Horned Owl: 31 July (1) NCCG. Barred Owl: 16 July (1) ECS. Bank Swallow: 3 July (2) AM, 7 Aug. (1) SB, 21 Aug. (3) SB, 31 Aug. (723) D (JD). Rough-winged Swallow: 16 July (1) AM. Barn Swallow: regular in varying numbers, high count 17 July (45) AM. Cliff Swallow: regular at CD, high count 1 July (35) CD. Short-billed Marsh Wren: 3 July (1) AM, 15 Aug. (1) SB.

Locations: AM—Amnicola Marsh, CD—Chickamauga Dam, CG—Cohutta, Georgia, CL—Chickamauga Lake (Wolftower Area), D—Dayton, Tennessee, ECS—Elsie Chapin Sanctuary, H—Hixson, Tennessee, HCP—Hamilton County Park, MP—Minnow Ponds, NCCG—North Chickamauga Creek Gorge, SB—Savannah Bay, SM—Signal Mountain, Tennessee, VOW—Volunteer Ordinance Works Pond.

Observers: DWKB—Dr. W. K. Butts, JD—Jon DeVore, JG—James Garrett.

JON E. DeVORE, 4922 Sarasota Drive, Hixson 37343.

BRISTOL—Herons-Owls: Green Heron: 3 June (1) SV; Broad-winged Hawk: 22 June (1) HM; 27 June (1) HM; Sparrow Hawk: 16 June (nesting pair) FB (WC); 22 June (1) BCC; Killdeer: 20 June (1) SHL; Barn Owl: 20 June (1) SHD (WC-CR); 21 June (1) WP (WC-TH-CS); 27 July (1 - freshly killed) I - Va. (BQ).

Goatsuckers-Shrikes: Whip-poor-will: 9 June (9) SHL; Ruby-throated Hummingbird: 3 Aug. (nest - 2 eggs) SV (JS, WC); Horned Lark: 17 July (15) BCC; White-breasted Nuthatch: 27 June (1); Blue-gray Gnatcatcher: 22 June (2) HM (WC); Cedar Waxwing: 3 June (6) SV; Loggerhead Shrike: 5 June (1) CC, Va. (WC); 15 June (1) SHL; 3 Aug. (1) SHL.

Vireos-Sparrows: Solitary Vireo: 19 June (3) HM (CS); Warbling Vireo: 5 June (1) CC, Va. (WC); Worm-eating Warbler: 15 June (1); 22 June (3); Parula Warbler: 3 June (1) SV; 19 June (3) HM; 22 June (5) HM; 27 June (4) HM; Black-throated Blue Warbler: 19 June (15) HM (CS); Chestnut-sided Warbler: 19 June (4) HM (CS); Canada Warbler: 19 June (2) HM (CS); Rose-breasted Grosbeak: 3 June (1) SV (WC); Vesper Sparrow: 3 June (nest - 3 eggs) SV (WC, LRH, JS).

Locations: BCC—Bristol Country Club area; CC, Va.—Clear Creek Lake, Washington County, Virginia; FB—Fairmount area Bristol; HM—Holston Mountain, Sullivan Co.; I-Va.—Interstate Hwy. 81, Washington Co., Va.; SHD—just below South Holston Dam; SHL—South Holston Lake, Tenn.; SV—Shady Valley, Johnson County; WP—Weaver Pike area.

Observers: WC—Wallace Coffey; LRH—Lee R. Herndon; TH—Tim Hawk; BQ—Bob Quillen; CR—Carolyn Randall; CS—Charles Smith; JS—John Shumate; BW—Bob Wagner.

WALLACE COFFEY, 508 Spruce Street, Bristol 37620.

ELIZABETHTON — Grebes-Sandpipers: Pied-billed Grebe: 12 June (3) on WL. Great Blue Heron: 8 June (1) (LRH). Green Heron: 31 Aug.

(7) at VA (WAB). Mallard: 5 Aug. (20) on WL (LRH). Blue-winged Teal: 24 Aug. (3). Wood Duck: 19 June (2). Lesser Scaup: 12 June, 12 July, 5 Aug. (2) on WL. Common Goldeneye: 5 Aug. (1) on WL. Bufflehead: 12 June, 5 Aug. (2) on WL. Broad-winged Hawk: 19 June (1); 9 Aug. (2); 15 Aug. (1). Ring-necked Pheasant: 18 June (1) SV. American Woodcock: 11 July (1) (RDM). Spotted Sandpiper: 24 Aug. (1). Solitary Sandpiper: 24 Aug. (1).

Owls-Finches: Barred Owl: 5 June (1) at LN (FWB). Chuck-will's-widow: last on 28 July (1) at MC (CRS). Hairy Woodpecker: 18 June (1) SV. Traill's Flycatcher: 10, 12 June (1), and 18 June (5) SV. Horned Lark: 12, 18 June (1) SV. White-breasted Nuthatch: 26 June (1); 11 July (1). Bewick's Wren: thru 17 July (1). Cedar Waxwing: 18 June (5). Golden-winged Warbler: 5 June (1) at LN (FWB); 18 June (2) in SV (LRH, CRS). American Redstart: 10 June (1); 18 June (5). Pine Siskin: 5 June (1) on RM (FWB). White-winged Crossbill: 5 June (15) on RM (FWB). Vesper Sparrow: 10 June (1) and 18 June (21) in SV.

Locations: LN—Lake Phillip Nelson, MC—Milligan College, RM—Roan Mountain, SV—Shady Valley, VA—Veterans' Administration, Johnson City, WL—Wilbur Lake.

Observers: FWB—Fred W. Behrend, WAB—W. A. Bridgforth, Jr., LRH—Lee R. Herndon, RDM—Roby D. May, CRS—Charles R. Smith.

CHARLES R. SMITH, Route 2, Johnson City 37601.

ROUND TABLE NOTES

BUFF-BREASTED SANDPIPER AT CHATTANOOGA — The first southeast Tennessee record of the Buff-breasted Sandpiper *(Tryngites subruficollis)* was recorded by the writer on 28 August, 1966 at Long Savannah Bay, northeast of Chattanooga. (see **MIGRANT, 34,** 57-60)

The area where the bird was recorded is low land, with short cropped grass extending to the waters edge during high water. On the morning of observation, the water was down, exposing fifty to seventy-five feet of mudflat around the shore. This area has, during low water, always proved to be an excellent area for shore-birds and is the area where Least Sandpipers have wintered in previous years. At 8:10 a.m. visibility was near excellent, with the sun at my back as I approached the mudflat.

Upon reaching the edge of the short grass several shore-birds were observed feeding along the flat near the waters edge. The birds were checked with 7x35 binoculars. A small brownish sandpiper emerged from the grass and moved quickly toward the other birds. The birds' actions were erratic; first it would dart from one place to another along the shore, sometimes going right through a group of feeding birds, then it would stop and extend its head to full length as if searching for something lost. It would proceed along the shore line a distance and dart back into the short grass, only seconds later to appear with neck once again outstretched. (the reader is referred to the habits description in Richard H. Pough's **Audubon Water Bird Guide** and **A Natural History of American Birds of Eastern and Central North America,** by E. H. Forbush, as Revised and Abridged by J. B. May).

Feeding along the shore near the Buff-breasted Sandpiper were: Semipalmated Plover (10), Killdeer (17), Common Snipe (1), Spotted Sandpiper (3), Solitary Sandpiper (2), Pectoral Sandpiper (14), Least Sandpiper (11), Semipalmated Sandpiper (3), and Western Sandpiper (3). By comparison with these birds, a good description of both size and color was easily obtainable. The Buff-breasted Sandpiper and the other birds were driven slowly along the mudflat to a small peninsula where they could be observed in close proximity to one another. All observations were then made with a spotting scope using both 20x and 30x. The bird was smaller than a Pectoral Sandpiper, being more nearly the size of a Spotted Sandpiper. Its underparts were light buff extending to the undertail. The breast was very slightly darker buff. The feathers of the back were dark, edged with light buff. There was a definite light ring around the eyes. The legs were a dull yellow. The bill was of medium length, dark, and resembled that of a plover. (the reader is referred to the color and pattern descriptions in Frank M. Chapman (1901) **Handbook of Birds of Eastern North America,** and Roger T. Peterson **A Field Guide to the Birds).** The birds were observed for about thirty minutes.

JON E. DeVORE, 4922 Sarasota Drive, Hixson 37343.

RUDDY TURNSTONE IN LAKE COUNTY — A Ruddy Turnstone *(Arenaria interpres)* was observed by me 11 May, 1965 about 10:00 a.m. a few yards north of the Tiptonville Ferry in Lake County, Tennessee. The bird, which was in full spring plumage, spent the day quietly feeding along the shore line of a pond in a plowed field. It made no attempt to fly away as I observed it but did keep a distance of about 20 to 30 feet from me.

Mrs. Mary Louise Cypert and Mrs. Jean Markham returned with me later and confirmed the identification. When we returned, at about 2:00 p.m., the bird was still feeding along the shoreline of the same pond. It was at this time that Mrs. Cypert and I watched a flight of 27 dowitchers *(Genus: Limnodromus)* settle down across the road from the turnstone. They immediately tucked their heads to rest and were not observed feeding.

The day was clear and cool with light variable winds.

The turnstone could not be found the next day.

MRS. C. K. G. SUMARA, Tiptonville.

WINTERING OF NORTHERN BIRDS ON ROAN MOUNTAIN—Rarely has winter bird study on Roan Mountain, that is, in the coniferous forest above 5,500 ft., situated partly in Tennessee, partly in North Carolina, been more exciting than during the 1965-66 season.

From the spring of 1965 on, when it became apparent that there would be a tremendous crop of balsam seeds, this writer speculated that it would result in an influx of northern birds.

The expectation materialized. Pine Siskins began to move in as early as the middle of October, Evening Grosbeaks showed up in substantial numbers early in November, Purple Finches and Red Crossbills were observed in smaller numbers not long thereafter.

It remained, however, for the White-winged Crossbill, discovered for the first time in November 1963 on Roan Mountain, again to furnish the most interesting experiences.

A few individuals heard and seen initially with the beginning of the last third of November last year, soon it became apparent that large-size flocks inhabitated the balsam and spruce-clad top of Roan Mountain.

A relatively open winter made weekly trips for checking possible throughout December. Deep snow and icy conditions prevented reaching the Roan at high elevation from the Tennessee as well as Carolina side on weekends throughout January.

The writer ventured up the Carolina side the first weekend in February and, encountering frozen snow to a depth of two feet on the highway, found in about seven hours of hiking only enough time for an unsuccessful search for Snow Buntings on Round Bald above Carvers Gap. A flock of Evening Grosbeaks was heard calling on this trip, but no other northern birds, or any at all for that matter, were in evidence in the coniferous forest directly above Carvers Gap.

It was possible, however, to resume regular checks subsequently throughout February and continue them uninterruptedly.

For unexplainable reasons — there was no scarcity of food — the number of Evening Grosbeaks heard or seen on Roan Mountain became progressively smaller and none was observed after the relatively early date for departure of 29 March.

Purple Finches which during intensely cold weather the end of January and in following weeks flocked to yards, where fed, in the valleys of Upper East Tennessee, were also entirely absent from Roan Mountain by late winter, likewise the Red Crossbill.

On the other hand, Pine Siskins and White-winged Crossbills remained in large numbers. It was amazing to find them week after week, as spring advanced. There was not a weekend in May on which Pine Siskins and White-winged Crossbills were not heard and seen in flocks, although their number gradually diminished.

The final observation date of the last flock of White-winged Crossbills was, unbelievably late, 5 June. Pine Siskins apparently had departed during the preceding week.

It seems doubtful that the experience will repeat itself the coming winter. This year's crop of balsam seeds is practically nil. Spruce has been developing a fair to good seed crop. Unless there is another failure of the coniferous seed crop this season, the presence of northern species of birds in this neck of the woods is unlikely.

FRED W. BEHREND, 607 Range Street, Elizabethton.

WILSON'S PHALAROPE AT NASHVILLE—On 12 August 1966, the writer observed a Wilson's Phalarope *(Steganopus tricolor)* on the lake at Bush Farm in Davidson County, at Nashville, Tenn.

The Phalarope was observed as it fed in one-inch deep water at the southwest corner of the lake. It appeared to sink its bill into the mud bottom and shake its head sharply from side to side. The head action created circular ripples on the surface of the lake.

The bird was observed to wade to the bank and feed on the mud flat in a typical shore-bird manner. It moved out of range for good observation but later returned to the same spot to repeat the feeding procedure described above.

The bird flew a distance of about fifty feet presenting an excellent view of the wings and tail. No stripes could be seen on the wings and the tail also was without stripes as in the yellowlegs. The bird had long yellow legs and was remarkably whitish.

The only other Nashville area record appears in THE MIGRANT **25:23.**

HENRY E. PARMER, 3800 Richland Avenue, Nashville 37205.

SCISSOR-TAILED FLYCATCHER OBSERVED IN LAKE COUNTY— In the late morning of 13 June 1966, the writer saw a Scissor-tailed Flycatcher *(Muscivora forficata)* perched on a power line along state highway 78 one-half mile north of Phillippy in Lake County, Tennessee. This is about midway between the Mississippi River and the northern part of Reelfoot Lake. The bird was observed with 7-power binoculars. It was quite unwary, allowing approach to within about twenty yards before it would fly a short distance and alight again. The writer had seen this species many times in Texas.

Ben B. Coffey, Jr., reported a Scissor-tailed Flycatcher at Phillippy on 7 August 1965 (THE MIGRANT **36**:59). Another of this species was reported near Memphis along the levee at Lakeview and Mud Lake on 26 April 1964 by Mrs. Edw. L. Carpenter, et al. (THE MIGRANT **35**:55).

Since the August 1965 observation and the recent observation were in the same locality, one wonders if the same bird could have returned in succeeding years. There is also the interesting possibility that this species may find the wide open Mississippi River farm country to be enough like the western prairies that they may extend their range to this area.

EUGENE CYPERT, 813 Foster Street, Tiptonville.

HARRIS' SPARROW WINTERS IN BRENTWOOD—In November 1964, I noticed a "different" sparrow feeding with other birds in my yard at my home in Brentwood, Tennessee. At first I thought it might be a female Purple Finch, but, with the help of other T. O. S. members, it was identified as an immature Harris' Sparrow *(Zonatrichia querula)*. It is unusual for this bird to be seen in the Nashville area, there being only twelve records of it. It came to the feeders daily until 27 April, 1965. A day or two after Thanksgiving, 1965, the Harris' Sparrow appeared again in a flock of White-throated and Field Sparrows. His plumage was that of a mature bird with black crown, face and bib, and a pink bill. Twenty-two members of the Nashville T. O. S. saw and identified the bird at various times. Henry Parmer made a good photograph of it. It continued to eat finely crushed corn placed on the ground several times a day all winter. In the small flock which accompanied the Harris' Sparrow, there was a Field Sparrow with white on head and wings (partially albino) both winters. The last few days before they left, a White-crowned Sparrow joined the flock. The last day the Harris' Sparrow was seen here was 6 May, 1966.

MRS. CHARLES MURPHY, Route 2, Brentwood 37027

HERONS AT MT. PLEASANT—In June and early July 1965 several reports of moderate-sized white herons in numbers up to about 10 came in from farmers in the Mt. Pleasant area. On 25 July I was flying over the marshes east of Mt. Pleasant and spotted a group of about 40 white herons in a very inaccessible marsh surrounded by willows. This area was subsequently checked on foot and it was found that all of the birds were Little Blue Herons without any of them showing the darker blue feathers of mature birds. The highest actual count was 39 birds at this time and most, if not all, the birds remained during the entire month of August. In early September, the marsh dried up and about 8 of the birds were found in a nearby similar area. Nests were not observed, but it is felt that a number of the birds were here during the early part of the summer when nesting would normally occur.

Yellow-crowned Night Herons (one pair?) did raise young in the Arrow

Lake area where three immature birds have been seen on several occasions. This has occurred in years past along with nesting Great Blue Herons and Little Green Herons in the area. The presence of large numbers of Little Blue Herons, however, has not been previously observed during the summer in this area.

GEORGE R. MAYFIELD, JR., Maury County Hospital, Columbia.

NESTING RECORDS

Now that the nesting season is over all those who have participated in the Cornell University Nesting-Record Program are urged to forward their completed cards as soon as possible. For the 1965 breeding season more than 25,000 cards were completed and turned in. Judging by the response so far the 1966 season will exceed that figure. Data from these nesting record cards have been used in papers presented at the Wilson Society meeting at Pennsylvania State University. It is hoped that more extensive use will be made of these records by research workers. The completed cards would be addressed to Mrs. Sally H. Spofford, Cornell Laboratory of Ornithology, 33 Sapsucker Woods Road, Ithaca, N. Y. 14850.

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Most articles published in THE MIGRANT are written by T. O. S. members and comprise their major contribution toward carrying out the Society's purposes. The Editor, like other officers, receives no remuneration for the considerable work he does so the proper preparation of copy will help toward reducing his work. All manuscript should be typed on one side of 8½x11 paper, double spaced, and with good margins. Provide a concise, meaningful title and, where needed, subtitles within the text. Footnotes are not used. Bibliography, when used, should be brief. Examine past issues of THE MIGRANT and follow the style there used, noting that "main articles" and Round Table items are set up differently. Acceptable for inclusion are articles describing the habits of birds as noted from original observations in Tennessee or adjacent areas. Reports on occurrence of unusual species should give full data on the observation so that the record may be evaluated. The value of this publication depends upon the correctness of what it presents so accuracy of statement and identification are obvious requirements. In addition to such articles, are reports on our regularly scheduled projects, such as Spring Migration, Spring Field Counts, Breeding Bird Counts, Hawk Migration, and the Christmas Census. Each of these are reported upon by duly appointed leaders and it is their duty to see that questionable records are eliminated.

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T.V. TOWER CASUALTIES AT NASHVILLE; SPRING AND FALL, 1966

BY AMELIA R. LASKEY

Casualties at WSIX TV towers were apparently light in spring 1966 as only three were collected: 10 Apr. American Coot; 25 Apr. Palm Warbler, Yellow-breasted Chat.

But on 26 Apr., WSM tower had the heaviest spring kill to date in Nashville: 37 individuals of 12 species (plus a Veery that was not fresh). The several preceding days had been overcast with drizzles and prevailing south winds. There must have been a heavy migration for numerous migrants had appeared at my home banding station. The casualty list for 26 April follows: Catbird 2; White-eyed Vireo 2; Red-eyed Vireo 9; Black-and-white Warbler 2; Blackpoll Warbler 2; Prairie Warbler; Ovenbird 5; Kentucky Warbler 4; Yellowthroat; Yellow-breasted Chat 4; Orchard Oriole 2; Indigo Bunting 2.

For autumn 1966, casualties at both towers totaled 909 of 73 species (WSIX 228 of 45 species; WSM 681 of 70 species). On 19 August, a Kentucky Warbler and a Yellow-breasted Chat were the first for the season (WSM). On 25 Aug. also at WSM, there were 28 casualties 12 species, after three days of north wind, average temperature 9.7 degrees below normal with some overcast.

Daily visits began on 7 Sept. at WSIX and 10 Sept. at WSM and were terminated at both towers in early November. Although there were no extremely heavy casualty nights, the largest kills followed the usual weather pattern of northerly wind, some precipitation and overcast. These occurred 22 Sept. both towers 147 birds; 18 Oct. WSM 54; 24 Oct. WSM 229.

Heading the casualty list were Tennessee Warbler 133; Ovenbird 71; Red-eyed Vireo 55; Swainson's Thrush 46; Bay-breasted Warbler 43.

A lengthy migration span was indicated for two species that breed here, the Kentucky Warbler—17 collected from 19 Aug. to 18 Oct. and the Summer Tanager—7 collected from Sept. 10 to 24 Oct. The earliest date of the arrival of a proven migrant Yellow-breasted Chat occurred 19 Aug. and latest dates for other proven migrants included Slate-colored Junco on 14 Nov. and Song Sparrow 13 Nov.

Another item of interest concerned the Mourning Dove. The 1966 kill almost equalled the number found in the previous 7 years (11). The 9 casualties of 1966 occurred on the nights of 17-18 Oct. (1); 22-23 Oct. (1); 23-24 Oct. (7).

SMITHSONIAN INSTITUTION MAR 14

The toll of Brown Creepers (13 on 24 Oct.) also almost equalled the number found since TV tower collections began in 1956 (15). The second specimen of the rare in fall Cape May Warbler was found 23 Oct. in such nondescript plumage that field identification would have been doubtful. The fourth tower specimen of the rare Sharp-tailed Sparrow was taken 24 Oct. our latest date. One of the Field Sparrows of 24 Oct. was prepared by Mr. Ganier and sent to the U. S. National Museum and was verified by Richard C. Banks, Honorary Curator as the western *Spizella pusilla arenacea.*

There were many early arrival and late departure dates for 1966 as well as new extremes for the Nashville area—25 Aug. Least Flycatcher 2; Mourning Warbler Ad. male; 23 Sept. Acadian Flycatcher; 18 Oct. Yellow-throated Vireo, Dickcissel; 20 Oct. White-eyed Vireo, Red-eyed Vireo 4, Black-throated Blue Warbler Ad. male, Yellowthroat, Wilson's Warbler, Rose-breasted Grosbeak, Sharp-tailed Sparrow; 25 Oct. House Wren; 26 Oct. Virginia Rail, Scarlet Tanager; 1 Nov. Long-billed Marsh Wren; 13 Nov. Grasshopper Sparrow.

In addition to various phases of migration, the tower victims were utilized for several other studies, thus utilizing valuable material that would have been wasted if systematic collections had not been conducted. These included studies of sex, age, plumage and supplying specimens for study collections of a college, a museum and two private collections (under Federal permit).

The complete list of casualties for autumn 1966 follows for WSIX and WSM, with an * indicating WSM only.

Virginia Rail *1; Sora 4; Coot *4; Mourning Dove *9; Yellow-billed Cuckoo 1-1; Yellow-bellied Sapsucker 1-3; Acadian Flycatcher *1; Least Flycatcher 2-3; Wood Pewee *1; Brown Creeper 1-12; House Wren 1-4; Winter Wren *2; Long-billed Marsh Wren *3; Catbird 14-7; Brown Thrasher 1-1; Wood Thrush 4-4; Hermit Thrush *2; Swainson's Thrush 29-17; Gray-cheeked Thrush 17-8; Veery 6; Golden-crowned Kinglet *8; Ruby-crowned Kinglet *8; Cedar Waxwing 1; White-eyed Vireo *1; Yellow-throated Vireo 1-5; Solitary Vireo *2; Red-eyed Vireo 17-38; Philadelphia Vireo 1-1; Warbling Vireo *1; Black-and-white Warbler 5-18; Worm-eating Warbler *1; Golden-winged Warbler *1; Tennessee Warbler 12-121; Orange-crowned Warbler *11; Nashville Warbler *9; Yellow Warbler *5; Magnolia Warbler 9-23; Cape May Warbler *1; Black-throated Blue Warbler *1; Myrtle Warbler 2-34; Black-throated Green Warbler 2-25; Blackburnian Warbler 3-7; Cerulean Warbler *1; Chestnut-sided Warbler 4-4; Bay-breasted Warbler 9-34; Blackpoll Warbler 1; Palm Warbler 2-4; Ovenbird 22-49; Northern Waterthrush 4-10; Kentucky Warbler *17; Mourning Warbler *3; Yellowthroat 11-12; Yellow-breasted Chat *15; Hooded Warbler 1-1; Wilson's Warbler *1; Canada Warbler *9; American Redstart 4; Bobolink 5; Red-winged Blackbird 2; Baltimore Oriole 1; Scarlet Tanager *2; Summer Tanager *3; Rose-breasted Grosbeak 1-7; Indigo Bunting 4-30; Dickcissel *1; Grasshopper Sparrow 3-9; Sharp-tailed Sparrow *1; Slate-colored Junco 4-4; Chipping Sparrow 2-8; Field Sparrow 2-16; White-crowned Sparrow *1; White-throated Sparrow 2-10; Lincoln's Sparrow 1-4; Swamp Sparrow 1-6; Song Sparrow 2-4.

Unidentifiable account condition 5-11.

For assistance in the collecting, appreciation is due Clara W. Fentress, Katherine A. Goodpasture, A. F. Ganier, Mike Bierly, for telephone calls alerting us to the early birdfalls from WSM personnel, Mr. Hickerson on 26 Apr. and Mr. Hobbs on 25 Aug.

1521 Graybar Lane, Nashville 37215.

THE 1966 CHRISTMAS SEASON BIRD COUNT

BY TOS MEMBERS AND GUESTS

The thirty-seventh annual Christmas Season Bird Count listed 119 species and subspecies. This compares with 130 species for the 1965 count, the all time high. The current count was equaled in 1964 and exceeded only on three other occasions by 122 species in 1954, 1955 and 1960. Fifteen counts are recorded in the table while three high altitude counts (Cosby, Big Bald Mountain and Roan Mountain) are recorded in paragraph form under the appropriate locality heading under "information on the counts."

The Harlan's Hawk and Virginia Rail occur in the list for the first time.

The chief differences in last year's count and this may be attributed to the incursion of northern species which may have been due to food shortage and severe weather to the north of our area as well as mild weather in our area until after the completion of the counts which was responsible for the delayed departure of several semihardy species. A total of 19 species occurred in the 1965 list which were not recorded in 1966 while eight species were on the 1966 list and not on the 1965 list.

INFORMATION ON THE COUNTS

In the species tabulation and description that follow, the localities are listed from west to east. Comments on unusual species will be found under the area headings where they occurred while the species and numbers of individuals are listed in AOU Check-list order in the table.

MEMPHIS—Roughly 1953 areas; wooded bottomlands 30%, deciduous woods, city parks and cemeteries 28%, bare fields and pastures 15%, suburban roadsides 25%, river edge 2%. 26 Dec. 7 a.m. to 5 p.m.; overcast, clear by noon; temp. 31° to 48°F; wind NNE, 0-5 mph; 29 observers in 9 parties. Total party-hours 85 (64 on foot, 21 by car); total party-miles 179 (60 on foot, 119 by car). Catbird CWs & C McP), LeConte's Sparrow (BC).

David Brown, Mr. and Mrs. Ben B. Coffey, Jr. (compilers), Dr. Julian Darlington, Mary Davant, Mr. and Mrs. Henry Dinkelspiel, Earl J. Fuller, Genevieve Geren, Lee R. Johnson, Edward M. King, Mrs. Leslie Kostka, Mr. and Mrs. Bill Lawhon, Robert W. McGowan, Charles McPherson, Nelle Moore, John Morrow, Glenn A. P. Peterson, Ernest Restivo, Dr. and Mrs. Arlo I. Smith, Bro. Francis R. Weber, Dr. Wendell L. and Bobby Whittemore, Virginia Wright, Mr. and Mrs. Charles Wilmeth, Dr. J. Lyndal York. Also Oliver Irwin, Karen Pearce, Mrs. Charles Seahorn, Mrs. M. L. Torti.

REELFOOT LAKE—36° 25' N, 89° 23' W (all points within a 15-mile circle centering in Reelfoot Lake on the west side of Starve Pond, extending northward to the north end of Lake No. 9 in Kentucky, eastward to the bridge on South Reelfoot Creek near Protemus and to the town of Hornbeak, southward to the north end of Lake Isom refuge and westward to the Mississippi River. Deciduous woods 30%, fields and pastures 50%, swamps and lakes 10%, river 5%, towns 5%. 28 Dec., 1966; 5:30 a.m. to 5:00 p.m. Cloudy to partly cloudy; temp. 32° to 51°; wind W-NW 10-25 m.p.h. 20 observers in 7 parties. Total

THE 1966 CHRISTMAS SEASON BIRD COUNTS

	Memphis	Reelfoot	Savannah	Columbia	Nashville	Old Hickory	Lebanon	Cookeville	Chattanooga	Knoxville	GSMNP	Greeneville	Kingsport	Bristol	Elizabethton
Common Loon	--	--	9	1	--	3	--	--	3	--	--	--	1	5	--
Horned Grebe	--	1	9	--	--	24	--	--	22	2	--	--	6	6	19
Pied-billed Grebe	3	17	35	8	5	10	--	2	5	3	1	--	19	7	5
Great Blue Heron	--	7	--	6	1	4	30	--	1	2	--	1	7	9	--
Green Heron	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--
Canada Goose	--	15,134	--	2	15	--	200	--	2	76	--	2	41	33	1
Snow Goose	--	1	--	--	--	--	--	--	20	--	--	1	--	--	--
Egyptian Goose	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--
Mallard	38	127,429	12	66	2	26	8,000	10	39	--	--	120	266	551	62
Black Duck	1	29,000	--	31	--	85	2,000	--	169	29	--	50	13	1,030	5
Gadwall	--	5,400	--	--	--	--	--	--	37	60	--	2	27	--	--
Pintail	5	2,640	--	--	--	--	--	--	3	--	--	--	--	--	--
Green-winged Teal	--	1,650	--	9	--	--	--	--	--	--	--	--	--	--	4
Blue-winged Teal	--	1	--	--	--	--	--	--	--	--	--	--	4	--	--
American Widgeon	--	3,203	--	--	--	--	2,000	--	7	--	--	4	47	--	--
Shoveler	--	2,200	--	--	--	3	--	--	--	--	--	--	--	--	--
Wood Duck	2	2,855	--	3	--	--	--	--	4	--	--	--	2	--	--
Redhead	5	8	2	4	4	--	--	--	3	--	--	--	26	--	--
Ring-necked Duck	--	5,250	--	58	24	2	--	--	--	2	--	--	27	--	6
Canvasback	--	242	--	1	45	28	--	--	--	--	--	--	11	--	--
Lesser Scaup	92	424	--	28	5	311	--	--	128	--	--	--	4	--	24
Common Goldeneye	--	38	16	2	23	13	--	--	22	16	--	1	48	8	38
Bufflehead	--	49	36	2	--	5	--	--	--	--	--	--	21	1	43
Ruddy Duck	2	55	--	10	--	4	--	3	5	--	--	--	--	--	--
Hooded Merganser	2	20	2	2	--	1	--	--	9	23	--	--	--	4	3
Common Merganser	1	11	2	--	--	--	--	--	--	--	--	1	--	--	--
Turkey Vulture	1	2	40	2	--	--	--	1	--	--	11	11	--	9	--
Black Vulture	--	21	--	3	--	--	--	1	--	--	--	3	8	1	--
Sharp-shinned Hawk	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--
Cooper's Hawk	--	2	--	--	--	--	--	1	1	2	1	--	--	1	--
Red-tailed Hawk	32	27	1	13	10	3	--	1	17	5	3	1	1	--	--
Harlan's Hawk	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--
Red-shouldered Hawk	3	3	--	--	1	3	--	1	2	1	--	--	--	--	--
Bald Eagle	--	53	--	--	--	--	--	1	1	--	--	--	--	1	--
Marsh Hawk	1	5	2	1	1	25	20	--	2	1	--	2	--	--	--
Peregrine Falcon	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
Sparrow Hawk	13	29	1	7	37	--	2	5	7	5	1	7	5	13	2
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	12	--	3	--	--
Bobwhite	103	--	15	3	44	18	26	32	77	57	46	8	32	30	13
Turkey	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--

	Memphis	Reelfoot	Savannah	Columbia	Nashville	Old Hickory	Lebanon	Cookeville	Chattanooga	Knoxville	GSMNP	Greeneville	Kingsport	Bristol	Elizabethton
Virginia Rail	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--
American Coot	6	550	375	500	61	111	100	--	20	6	--	2	14	1	2
Killdeer	46	6	7	2	25	3	6	1	27	47	24	6	8	1	7
American Woodcock	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--
Common Snipe	24	--	2	3	--	--	--	4	4	3	1	6	--	--	--
Herring Gull	1	6	--	--	--	--	--	--	5	2	--	--	100	2	--
Ring-billed Gull	45	32	50	--	--	39	--	--	71	215	--	--	200	11	--
Bonaparte's Gull	--	--	70	--	--	7	--	--	--	--	--	--	--	--	--
Mourning Dove	78	75	21	46	92	36	14	66	284	178	22	54	41	54	7
Barn Owl	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
Screech Owl	--	--	--	--	1	2	--	--	3	1	--	3	1	--	--
Great Horned Owl	2	--	--	3	--	--	--	--	1	--	2	--	--	--	--
Barred Owl	3	2	--	--	1	--	2	--	1	--	1	--	--	--	--
Short-eared Owl	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Belted Kingfisher	1	4	4	4	16	15	4	1	14	8	20	4	4	4	9
Yellow-shafted Flicker	202	111	24	10	54	14	5	13	48	17	18	6	5	3	4
Pileated Woodpecker	13	10	7	10	38	2	1	5	16	18	24	6	5	12	8
Red-bellied Woodpecker	126	48	7	23	94	12	8	10	29	30	8	13	4	9	8
Red-headed Woodpecker	70	20	5	--	1	--	--	7	7	3	--	2	2	--	--
Yellow-bellied Sapsucker	39	9	1	7	--	4	2	1	6	7	9	2	3	--	1
Hairy Woodpecker	27	9	2	5	--	2	3	10	6	--	9	1	3	--	--
Downy Woodpecker	74	26	13	25	--	11	7	28	38	31	37	23	18	11	7
Eastern Phoebe	--	1	1	2	--	--	--	--	--	--	1	--	1	2	1
Horned Lark	412	57	3	16	80	37	--	3	24	10	--	--	20	2	12
Blue Jay	608	78	27	10	164	50	28	207	203	293	105	34	51	74	77
Common Raven	--	--	--	--	--	--	--	--	--	--	10	--	--	--	--
Common Crow	56	3,160	42	85	451	83	12	131	176	347	355	145	295	379	635
Fish Crow	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--
Black-capped Chickadee	--	--	--	--	--	--	--	--	--	--	(323	--	--	--	--
Carolina Chickadee	274	91	35	87	335	51	46	67	102	141	(	60	80	61	59
Tufted Titmouse	123	47	36	49	257	28	37	123	137	134	100	83	55	58	50
White-breasted Nuthatch	2	4	4	3	22	2	1	18	10	16	24	10	22	10	17
Red-breasted Nuthatch	1	--	--	--	--	--	--	--	1	--	12	--	--	--	--
Brown Creeper	19	1	3	--	8	2	4	1	7	9	19	1	10	1	2
Winter Wren	6	1	3	1	4	2	--	1	4	4	7	1	4	2	2
Bewick's Wren	--	1	1	2	3	--	--	3	--	1	--	1	--	--	--
Carolina Wren	133	33	11	8	55	7	1	11	59	65	43	22	13	8	21
Mockingbird	223	23	15	14	186	106	10	30	145	178	40	25	34	57	44
Catbird	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Brown Thrasher	49	3	6	2	5	--	1	5	31	1	--	2	1	--	--

	Memphis	Reelfoot	Savannah	Columbia	Nashville	Old Hickory	Lebanon	Cookeville	Chattanooga	Knoxville	GSMNP	Greeneville	Kingsport	Bristol	Elizabethton
Robin	680	28	21	5	33	35	5	1	134	52	47	1	5	--	17
Hermit Thrush	14	1	1	--	--	--	--	--	7	--	3	--	--	--	--
Eastern Bluebird	16	15	22	8	50	2	--	38	24	2	17	3	11	--	--
Golden-crowned Kinglet	27	8	28	--	--	3	--	--	39	11	81	5	30	21	8
Ruby-crowned Kinglet	22	11	15	--	--	2	--	--	7	3	9	2	1	1	--
Water Pipit	4	--	--	--	--	--	--	--	--	--	--	1	--	--	--
Cedar Waxwing	49	9	3	--	19	--	--	--	112	--	--	--	--	--	--
Logger-head Shrike	46	41	8	10	33	11	1	6	13	20	8	9	14	12	4
Starling	24,070	9,394	200	1,512	3,167	2,930	315	2,000	10,297	7,242	220	400	2,000	3,448	80,932
Myrtle Warbler	98	2	5	--	6	1	--	1	6	5	6	3	6	--	5
Pine Warbler	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--
House Sparrow	172	1,649	40	56	225	121	85	168	624	195	12	60	80	130	190
Eastern Meadowlark	203	197	33	95	152	129	10	64	261	156	125	215	58	123	18
Western Meadowlark	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwinged Blackbird	11,660	51,779	85	150,000	--	22	--	--	1,366	207	30	1	--	--	--
Baltimore Oriole	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--
Rusty Blackbird	272	6	3	50,000	4	102	--	--	49	58	--	--	250	--	82
Brewer's Blackbird	2	--	--	100	--	--	--	--	--	--	--	--	--	--	--
Common Grackle	4,035	10,243	350	50,000	1	129	8	10,000	3,422	144	4	79	--	--	50
Brown-headed Cowbird	121	153	--	100,000	200	3	1	200	117	41	--	--	--	--	7
Cardinal	602	348	69	56	611	174	102	206	292	362	240	109	67	185	174
Rose-breasted Grosbeak	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--
Purple Finch	88	3	2	--	32	3	2	23	22	3	--	7	2	--	--
Pine Siskin	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
American Goldfinch	264	56	110	38	541	86	--	4	173	73	56	56	13	57	34
Red Crossbill	--	--	--	--	--	--	--	--	--	--	--	--	--	--	30
Rufous-sided Towhee	206	3	28	15	125	10	13	74	133	74	27	7	6	1	3
Savannah Sparrow	23	--	9	1	--	4	--	6	12	7	8	--	--	--	2
Le Conte's Sparrow	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vesper Sparrow	--	--	--	--	--	--	--	--	8	--	3	--	--	--	--
Slate-colored Junco	947	255	150	21	820	56	94	213	455	123	191	79	95	255	101
Tree Sparrow	--	12	--	--	--	--	--	--	--	--	--	--	--	--	--
Chipping Sparrow	--	--	3	--	--	--	--	--	1	--	--	--	--	--	--
Field Sparrow	337	103	45	10	260	71	4	43	210	249	85	85	8	102	53
White-crowned Sparrow	61	--	--	21	5	8	9	4	2	31	1	13	--	26	6
White-throated Sparrow	1,566	160	85	47	275	68	9	76	274	370	163	86	50	11	79
Fox Sparrow	161	3	2	7	8	5	4	9	8	6	2	8	--	--	2
Swamp Sparrow	272	50	21	11	4	2	--	26	63	62	15	3	--	--	1
Song Sparrow	419	65	28	27	186	19	3	10	168	161	98	45	13	47	42
Total Individuals	49,435	275,783	2,300	353,219	9,079	5,195	13,234	13,986	20,365	11,731	2,747	1,994	4,322	6,891	83,036
TOTAL SPECIES	**79**	**86**	**70**	**68**	**62**	**67**	**44**	**55**	**83**	**70**	**57**	**64**	**66**	**51**	**55**

party-hours 48 (17 on foot, 23 by car, 8 by boat); total party-miles 311 (19 on foot, 284 by car, 8 by boat). Seen in area court period, but not on count day: Western Meadowlark.

Kathleen Bratton, Lula C. Coffey, Eugene Cypert (compiler), Mary Louise Cypert, Druey E. Davis, John DeLime, Harvell Denton, Erline Elmore, Ron J. Johnson, Edwin Larson, Jr., William E. Lindamood, Mrs. William E. Lindamood, Henrietta McCrary, Clell T. Peterson, Arlo Smith, Noreen Smith, Gerald Smith, Mrs. Gerald Smith, Wynn Smith, Mary Wood.

SAVANNAH—Same as last year, Pickwick Dam, Savannah, and Harbert Hills Academy. 21 Dec.; clear; wind W O-15 m.p.h.; temp. 35°-65°; 5 observers in 2 parties. David Patterson (compiler), Paul Patterson, Roger Patterson, Roger Swanson, Andrew Rimmer.

The Virginia Rail is noteworthy, see Mayfield, THE MIGRANT: 37, 11 1966 — On 20 December David Patterson saw two of them, one at a distance of six feet for a minute or more. On count day, 21 December, Roger and David Patterson flushed one at the same location and watched it fly about thirty feet.

The Peregrine Falcon was observed by Roger Swanson and Paul Patterson for about five minutes, both perched and in flight. The large size, white throat, wide mustache and no rufous coloring were carefully noted.

COLUMBIA—Same area as used in the past with center at 35° 36' N latitude—87° 10' W longitude (one mile west of Zion Church). 2 Jan., 8 a.m. to 6 p.m. Dense morning for almost obscured all observation but clear in afternoon; temp. 28° to 45°; wind 0-5 m.p.h. NW.

William and Mary Lucy Fuqua, Daniel Gray, Jr., Daniel Gray, III, Cleo and George Mayfield, Jr. (compiler), Delton Porter and Evelyn Ridley.

NASHVILLE—The center of the 15 mile circle was moved 5 miles S.W. to the crossing of the Harpeth River by Tenn. highway 100. Included were Radnor Lake, deciduous wooded hills 40%, open fields and pastures 25%, river-bottom fields 20%, roadsides and suburban yards, including 17 feeding stations, 15%. 31 Dec., 6:15 a.m. to 4:45 p.m. Temp. 36° to 42°. A light drizzle until about 10:30, then heavily overcast the remainder of the day. 38 observers in 10 parties. Party-hours 100 (30 on foot, 70 by car); party-miles 303 (45 by foot, 258 by car). The Canada Geese were flying overhead JOE; Starlings were far below normal; the Rose-breasted Grosbeak had been at the feeder of Mrs. Jack Clark since 20 Dec. Its identification had been verified by Mrs. Wm. Bell.

Mr. and Mrs. B. H. Abernathy, Frances Abernathy, Mr. and Mrs. Clyde Anderson, Mr. and Mrs. Wm. F. Bell, Sr., Wm. F. Bell, Jr., Mike Bierly, Ruth Castles, Annella Creech, Charles DeWitt, Sam Doak, Milbry Dugger, Mr. and Mrs. John O. Ellis, Erline Elmore, Adele Elam. Charles E. Farrell, Albert F. Ganier, Edwin Gleaves, Katherine A. Goodpasture, Steve Greenfield, Mr. and Mrs. John S. Herbert, Louise Jackson, Carol Knauth, Harry C. Monk, Fanny Murphy, Mrs. Robert Nichols, Mr. and Mrs. Kirby Stringer, Lawrence O. Trabue, Alvin Vincent, Mr. and Mrs. George B. Woodring, Mary C. Wood, Henry E. Parmer (compiler).

OLD HICKORY LAKE—(Center 6½ miles N.E. Nashville Court House) The circle was moved about 8 miles S.W. to the mouth of Stones River. Included were Bush's and Colman's lakes, Stones River (soon to be the Stones River Reservoir), and the lower 8 miles of the Old Hickory Resevoir. Deciduous wooded hills 20%, open fields and pastures 40%, river-bottom fields 20%, road-sides 12%, open water 8%. 1 Jan. from 6:45 a.m. to 5:00 p.m. Temp. 36° to 50°. From heavily overcast to cloudy in the late afternoon. 12 observers in 5 parties, plus observers at two feeding stations. Party-hours 29 (8 by foot, 21 by car); party-miles 141 (11 on foot, 130 by car). An additional 250 plus ducks on O. H. Lake were unidentified due to distance and poor light. Gulls were far below normal there.

Mr. and Mrs. Wm. F. Bell, Sr., Annella Creech, Milbry Dugger, Erline Elmore, Steve Greenfield, Carol Knauth, Lee F. Kramer, Harry C. Monk, Henry E. Parmer (compiler), Lawrence O. Trabue, Mary C. Wood.

LEBANON—The same area as in previous years. 31 Dec. Cold and cloudy. Myrtle B. Hobbs (Compiler).

COOKEVILLE—Same area as in previous years. 28 Dec., 7:30 a.m. to 4 p.m. Partly cloudy, snow flurries; temp. 20° to 35°; wind W 2-12 m.p.h. Observers 12; parties 9; party-hours 56; party-miles 59 (3 on foot, 56 by car).

Edwina Cummins, John Cummins, Ralph Dunkel, Caprice Haile, Roy Hines, Raymond High, Paul Hollister, Amy Johnson (Compiler), Elizabeth Killefer, Martin Nowak, Thelma Tinnon and Robert Toline.

CHATTANOOGA—All points within a 15-mile diameter circle, center National Cemetery; fields and pastures 35%, woodlands 20%, ponds and lakes 15%, creeks and rivers 15%, roadsides 10%, and residential 5%, 1 Jan. 4 a.m. to 6 p.m.; cloudy, scattered drizzle a.m., cloudy p.m. Temp. 34° to 40°; wind SW, 1-5 m.p.h. Twenty-six observers in 15 parties. Total party-hours 76 (31 on foot, 40 by car, 5 by boat); total party-miles 489 (33 on foot, 423 by car, 30 by boat). Seen in area during count period, but not on count day: Green-winged Teal.

Harlan's Hawk was observed by Gene and Adele West (See Round Table Note). The Bald Eagle (Immature) was observed by the Benton Basham party at 200 to 400 yards with binoculars and B & L Scope. The Snow Geese (first ever here on a Christmas Count) were observed flying Northeast at an approximate altitude of 200 yards by William Phillips. Written description was as follows: size of Canada Goose, all white plumage, black wing tips. More observers in the field checking a greater amount of habitat helped to make this the highest count ever, here. Noticeably absent from the list were the Eastern Phoebe, Bewicks Wren and Pine Siskin.

Francis Barnwell, Benton Basham, Ralph and Carol Bullard, Dr. W. K. Butts, Maxine Crownover, Dr. C. F. Dean, Jon E. DeVore (compiler), Roberta Doub, Kenneth Dubke, Roy Evenson, Dr. and Mrs. John R. Freeman, James Garrett, Mr. and Mrs. H. G. Nelson, Mable Norman, Ed. Phillips, William Phillips, Theo L. Rogers, Veta Sliger, Charles Sterchi, George Thompson, Frank Ward, Mr. and Mrs. Eugene M. West.

KNOXVILLE—(same area as in previous years, in a 15-mile diameter circle centered on Oak Ridge Hwy. at Third Creek: woods 36%, fields and pastures

22%, roadsides and brushy fields 18%, lake and riversides 8%, suburbs 16%.) 26 Dec. 6:30 a.m. to 6 p.m. Partly cloudy; temp. 24° to 41°; wind variable and light; light snow covering in morning. 17 observers in 9 parties. Total party-hours 81 (69 on foot, 12 by car); total party-miles 315 (70 on foot, 245 by car).

J. M. Campbell, R. M. Campbell, Jessie Dempster, John Elson, Maurice Grigsby, Susan Hoyle, Mr. and Mrs. R. A. Monroe, Mrs. E. E. Overton, J. B. Owen, P. S. Pardue, Mrs. K. Sanders, Terry and Steve Satterfield, J. T. Tanner (compiler), Mr. and Mrs. W. B. Williams.

The Green Heron was observed at less than 20 feet for several minutes by Susan Hoyle and Mrs. Sanders. The two Baltimore Orioles have been at neighboring feeding stations for several weeks.

GREAT SMOKY MOUNTAINS NATIONAL PARK, TENN. - N. C.—(localities are within a 15-mile diameter circle centered on Bull Head of Mt. LeConte) same general area as in 1937-1956 and 1962 to date. 1 Jan., 1967, 2:30 a.m. to 6 p.m. Cloudy, some rain; temp. 34° to 47°; wind variable 1-40 m.p.h. 33 observers in 14 parties. Total party-hours 103 (74 on foot, 29 by car); total party-miles 328 (83 on foot, 245 by car). Seen in area count period, but not on count day: Sharp-shinned Hawk.

John Austin, David Burney, Danny Ellis, John Elson, Lloyd Foster, Mr. and Mrs. William Gallagher, Mrs. Harold Garlinghouse, Mr. and Mrs. David Highbaugh, Susan Hoyle, Beth Lacy, Henry Lix (compiler), Susan Lix, Vernon Lix, Mrs. George McGown, Mary McIlwain, J. Mengel, Julia Moore, Louise Nunnally, Holly Overton, Paul Pardue, Ed Smith, Mr. and Mrs. Louis Smith, Mr. and Mrs. Arthur Stupka, James Tanner, Mr. and Mrs. W. B. Williams, Mr. and Mrs. George Wood (Tennessee Ornithological Society, Great Smoky Mountains National Park, and guests).

COSBY—Eastern end of the Great Smokies. Recreation area to Suttons Ridge and Snake Den Trail. 1 Jan., 7:30 a.m. to 2:30 p.m.; overcast, light rain in morning, fog; 35°; practically no wind. Two observers in one party. Total party-hours 5; total party-miles 5, on foot. Turkey Vulture 1, Pileated Woodpecker 1, Hairy Woodpecker 2, Blue Jay 2, Common Crow 6, Carolina Chickadee 6, Tufted Titmouse 4, Slate-colored Junco. Total: 9 species, 31 individuals.
Dr. Royal B. Spees, Richard Nevius (compiler).

GREENEVILLE—Area same as in previous years, except not including Marvin. 26 Dec., 6:15 a.m. to 6:00 p.m.; weather clear; temp. 10° to 35°. 12 observers in 5 parties. Total party-hours 38 (10 on foot, 25 by car, 3 by boat); total party-miles 57 (8 on foot, 46 by car, 3 by boat).

Mrs. Collins, Elva Darnell, Roger Miller, Richard Nevius (compiler), Mrs. Richard Nevius, Dr. and Mrs. R. B. Spees, Karl Spees, Lynn Spees, David Spees, Wade Spees.

BIG BALD MOUNTAIN—Center head of East Fork Higgins Creek; Deciduous woodland 75%, treeless grassy surface on bald 25%. 10 hours, 9 miles, all on foot. 2 Jan., sunny to cloudy; temp. 26° to 38°. Ruffed Grouse 1, Hairy Woodpecker 2, Chickadee (sp.), White-breasted Nuthatch 1. Total: 5 species, 12 individuals.

Fred W. Behrend, observer and compiler.

KINGSPORT—Usual Christmas Count center at Pactolis; (36° 30' N, 82° 30' W, near Patrick Henry Dam.) Bays Mt., parts of Boone and Patrick Henry Lakes, Holston River, Reedy Creek, Horse Creek, and surrounding territory. 2 Jan., 7:30 a.m. to 5:00 p.m.; temp. 28° to 50°; a high overcast until about 9:30 a.m., later clear with a few clouds; wind 0-10 m.p.h. NE, mainly on the mountain. The lake on Bays Mt. was mostly covered with ice, littered with dead ducks. There was also ice on the puddles. Of particular interest were the Shrike count 14, the Black Vulture count 8 (with no Turkey Vultures), and 250 Rusty Blackbirds observed by George Rodgers.

Charles Baker; Marie Brown; Joseph, Richard and Thomas Finucane (compiler); George Rodgers; Arthur Smith; Lucille Smith; Ann Switzer; Howard Young.

BRISTOL, TENN. - VA.—All points within a 15-mile diameter circle center same as in previous years. 31 Dec., 6:30 a.m. to 5:30 p.m.; temp. 31° to 36°; heavy overcast, sleet in a.m. and light rain in p.m.; wind N 0-8 m.p.h. 9 observers in 4 parties. Total party-hours 26½ (19 on foot, 6 by car); total party-miles 208 (14 on foot, 192 by car, 2 by boat).

Mrs. Carleton Abbott, Fletcher Bingham, Wallace Coffey (compiler), David McPeak, Robert Quillen, John Shumate, Charles Smith, Enno van Gelder, Henry Woodward.

ELIZABETHTON—The same area was covered as in previous years. 1 Jan., 6:30 a.m. to 6:30 p.m.; cloudy throughout the period with occasional light rain; temp. 35° to 43°; wind W 5-11 m.p.h. 9 observers in 6 parties. Total party-hours 44 (19 on foot, 25 by car); total party-miles 177 (14 on foot, 163 by car).

Fred W. Behrend, William A. Bridgforth, Jr., Carolyn and Wallace Coffey, Ed Davidson, Mr. and Mrs. C. W. Fairbanks, Roby D. May, Charles R. Smith (compiler).

ROAN MOUNTAIN—Center at Carvers Gap; coniferous forest 70%; rhododendron, mountain alder, briars 20%; grassy bald 20%. 9½ hours, 9 miles, all on foot. 22 Dec., clouds, fog and sunshine; temp. 28° to 40°. Ruffed Grouse 3, Common Raven 2, Slate-colored Junco 4. Total: 3 species, 9 individuals.
Fred W. Behrend, observer and compiler.

A NEW PRINTER

If you have noticed a different appearance to this issue of THE MIGRANT, it is probably because we have changed printers. It has been our pleasure to do business with the Fitzsimmons Printing Company of Elizabethton in past years.

Our new printer is THE KING PRINTING COMPANY, 509-511 Shelby Street, Bristol, Tennessee 37620.

The Editorial Staff always welcomes comments from members and readers.

TENNESSEE'S PARTICIPATION IN THE 1966 BREEDING BIRD SURVEY

J. C. Howell

During late May and June 1966, 28 members of the Tennessee Ornithological Society participated with bird students of 26 eastern states and 4 Canadian provinces in carrying out a Breeding Bird Survey. In the course of this program a grand total of over 500,000 birds was counted.

Tennesseans were encouraged to make counts along 42 routes. Counts were submitted for 38 of these 42. The average number of birds observed per Tennessee route was 760. The counts established a numerical basis for determining changes in bird populations in the years to come. It is hoped counting birds along these routes can be continued. The Tennessee routes were selected to be representative of the state as a whole.

The total number of birds counted in Tennessee was 28,874 and it included individuals of 111 species. It is apparent that many species of birds breeding regularly (but with a limited distribution) in our state were not observed.

As the years go by we may be able to determine which species are undergoing changes within the state as a whole and perhaps within the major regions of the state as well. It may prove possible to correlate the observed population changes with such ecological variables as temperature, rainfall, habitat or pesticides.

The information on our Tennessee roadside counts reached me on a stack of thin 11 x 14 inch paper sheets attached to one another. This report is as it was printed by a computer. For each species the report lists the number of each route on which it was observed, a topographical name designation for each route and its latitude and longitude, the observer, the temperature, the wind speed, the sky cover, the date, the number of individual birds for each of the five summary pages of the field report, the total number of individuals of that species observed during that count, and the number of stops at which one or more individuals were observed. Each species is listed by its A.O.U. number and summaries of the number of individuals are provided for each species and for all species.

TABLE 1. TEN MOST CONSPICUOUS BREEDING BIRD SPECIES, 1966

	TENNESSEE			ALL EASTERN STATES COMBINED		
Species	*Av. Ind. per Rt.*	*% of Rt.*	*No. of Stops*	*Species*	*Av. Ind. per Rt.*	*% of Rt.*
Common Grackle	83	97	704	Common Grackle	85	98
Starling	47	100	387	Starling	83	97
Indigo Bunting	41	100	980	House Sparrow	82	94
E. Meadowlark	40	100	721	R-W Blackbird	80	99
Cardinal	39	100	954	Robin	35	88
House Sparrow	34	97	255	Common Crow	28	99
Bobwhite	34	100	878	Bobwhite	25	68
Mourning Dove	32	100	668	E. Meadowlark	23	89
Common Crow	30	100	630	Cardinal	22	79
R-W Blackbird	27	100	370	Mourning Dove	21	87

Table 1 lists the 10 most conspicuous breeding bird species in 1966 for Tennessee and for all of the eastern states combined. Nine of the species are common to the two lists. In Tennessee the Indigo Bunting replaces the Robin on the list for all of the eastern states. It may be pertinent to note that the figures appearing in table 1 refer to the conspicuousness of each species rather than the true abundance. For example a species such as the Common Crow will be represented in such a list by a higher proportion of its actual population than will the Blue-gray Gnatcatcher since the crow is larger, produces louder sounds, and inhabits open fields rather than woods.

The table also lists the number of stops at which each of the Tennessee species was recorded. There was a total of 1900 stops on the 50 routes. The Indigo Bunting was recorded at the largest number of stops. It was present at 52% of all stops. By contrast the House Sparrow was counted at only 13% of the stops. These differences seem to reflect the great adaptability of the bunting to Tennessee habitats and the lack of it of the House Sparrow.

I should like to encourage seasoned birders throughout the state to participate in this valuable project. Additional routes should be added to the 38 covered this year. The selection of routes to be surveyed is determined by the personnel of the Migratory Bird Population at Laurel, Maryland. This agency is within the Bureau of Sports Fisheries and Wildlife and is responsible for the Breeding Bird Survey.*

Thanks are due to the following 28 persons as listed in the computer report who counted birds over the 38 Tennessee routes. Where a participant completed counts on more than one route, this number is enclosed in parentheses following their name: Mrs. W. F. Bell (2), M. L. Bierly, J. M. Campbell (3), E. Carpenter, B. B. Coffey (3), A. Creech, M. L. Cypert (2), J. E. DeVore, H. Dinkelspiel, J. O. Ellis, E. Fenn, T. W. Finucane, E. J. Fuller, K. A. Goodpasture (4), J. C. Howell (2), Wm. Jones, V. Julia, G. R. Mayfield, R. W. McGowan, G. N. Nelson, W. R. Nevius, E. F. Olson, H. A. Smith, N. M. Smith, M. Swindell, J. T. Tanner, A. H. West, M. C. Wood.

REFERENCE

* Van Velzen, Willet T., Maryland's Part in the 1966 Breeding Bird Survey. Maryland Birdlife. 1966, 22 (3): 88-93.

Dept. of Zoology and Entomology, University of Tennessee, Knoxville 37916.

NOTICE

It is time again to pay the annual dues. If you have not done so, then make your check payable to the Tennessee Ornithological Society and mail your 1967 dues to the Treasurer:

MISS ANNELLA CREECH, 1500 Woodmont Blvd., Nashville, Tenn. 37215.

ROUND TABLE NOTES

HARLAN'S HAWK IS NEW YEAR PRESENT FOR CHATTANOOGA —While participating in a Christmas census on 1 January, 1967, Adele and Gene West saw a Harlan's Hawk (*Buteo harlani*) on the campus of Baylor School which has a private lake and also borders the Tennessee River. The perched bird was noticed immediately upon our arrival at 2:45 p.m. During a 45-minute observation period (with binoculars and 20X telescope) the bird moved to several perches within easy viewing distance and was studied in various attitudes including flight.

Although it was a dark, drizzly day, the hawk had a noticeably white tail. The very dark back had no white spots. The body underparts were also very dark. Every view of the white tail showed some dark spotting but, in the poor light conditions, it was not possible to ascertain that the contrasting spots were in the form of a border.

Of course, the rare bird was reported that night at the compilation and four other chapter members made plans to meet the next morning to search for the hawk. However, no search was necessary as the hawk was found immediately. A bright, clear day made it easy for Benton Basham, Ralph Bullard, Jon DeVore, and Ken Dubke to confirm its identification as a Harlan's Hawk.

An article by John Ogden in THE MIGRANT 32:1 indicates that this would be the fourth record for Tennessee. However, a Harlan's Hawk at Chickamauga National Military Park (Georgia) does give Chattanooga two area records. This previous observatiaon occurred on 12 April, 1953, and is reported in THE MIGRANT 27:1.

MRS. E. M. WEST, 5511 Dayton Blvd., Chattanooga.

A RINGED TURTLE DOVE IN GREENE COUNTY—During the morning of a mid-April day in 1965, I heard an unusual song with a dove-like quality across the way in the vicinity of our farmer-neighbor's barnyard which is about three miles south of Greeneville. Upon investigation days later, I found the persistent soloist to be a sandy-white dove with slender body, long, rather slim tail with rounded white corners. The legs were a reddish-orange, the beak dark and on close observance the primaries were quite buffy in appearance. An outstanding mark was a black crescent on the back of its neck.

It was observed several times at close range and through 7 x 50 binoculars. The bird remained in the vicinity while I searched books, talked with and wrote to other birders regarding its identity.

In Peterson's Field Guide to Western Birds the Ringed Turtle Dove, (*Streptopelia risoria*), is pictured and described. It is also included in the new Golden Field Guide, Birds of North America, by Golden Press.

As for characteristics, it appeared to feel at home in the vicinity of the barnyard, in a large oak tree and feeding on corn on the ground or up on a board feeder, and did not show unusual fear of people. During the nesting season, it called continuously during parts of the day, and showed a belligerent attitude toward other doves. It came frequently to our yard, pestering a pair of nesting Mourning Doves until they flew away. It flew behind them uttering a 'he-he-he-' laughing sound. The frequent disturbance did not prevent the successful nesting of the Mourning Doves.

An abundance of food was available, and it remained in our area until 17 Jan. 1966. It disappeared during the cold, snowy weather. We searched for evidence of freezing or foul play but none was ever found.

The Ringed Turtle Dove is an introduced bird which resides locally in Los Angeles, in St. Petersburg and it is reported in Tampa.

MRS. CHESTER B. DARNELL, Route 4, Greeneville.

NESTING BLACK-CROWNED NIGHT HERONS IN KNOX COUNTY—A small colony of Black-crowned Night Herons (*Nycticorax nycticorax*) was found on 6 August, 1966 near the shore of an embayment of Ft. Loudon Lake (Tennessee River) approximately one mile from Concord Boat Dock in the southwestern corner of Knox County, Tennessee.

During the early part of the summer of 1966 Ralph Zanglein, from Maryville, along with Mr. Woody, also of Maryville, made several observations of night herons on the Blount County side of Ft. Loudon Lake and later learned from fishermen that the herons seemed to congregate on the Knox County side of the lake nearly two miles away. Woody, Zanglein, Maurice Grigsby and I inspected the site by boat on 31 July, 1966 and found at least three mature and two immature Black-crowned Night Herons perched near the top of several pine trees one hundred feet from the shore. It was impossible to dock the boat near this site to search for nests nor could we spot any nests from the boat.

On 6 August, 1966 Maurice Grigsby, Stephen Satterfield, Robert Campbell and I reached the site by walking near the shoreline from Northshore Drive. We had no difficulty finding the colony since we heard the characteristic "guark" call of several Black-crowned Night Herons. We located six typical stick nests approximately twenty feet high in separate pine trees all within an area of 150 to 200 feet in diameter. A seventh nest had fallen to the ground. All of the nests appeared to be nearly two feet in diameter and about one foot deep. The colony site was entirely within a thick grove of 30 to 35 foot high pines. The grove area comprised nearly two acres. The nests ranged from 50 to 150 feet from the shoreline. The pine grove was on a relatively inaccessible hilly peninsula otherwise covered with deciduous trees. The peninsula was approximately 100 acres in area.

Broken egg shell pieces were found under most of the nests as were the inevitable bird droppings. It was virtually impossible to accurately count the birds present because of the dense foliage and the constant moving of the adult birds and the flapping and limb-hopping of the immatures but we definitely counted three immatures and three adults. There must have been others but any estimate would be sheer conjecture. None of the nests were occupied.

It is possible that a few of these nests could have been from another nesting year. Since the newest nests must have been several weeks old, it might not be discernable whether a nest was a year old or two months old.

There are no other known nesting records of this species in Knox County but one small colony was located on 22 June, 1952 on the Blount County side of Ft. Loudon Lake several miles upstream from the present site according to Birds of Knox County by Howell and Monroe.

JAMES M. CAMPBELL, 15 Hedgewood Drive, Knoxville.

COLONIAL NESTING OF THE GREEN HERON—A fairly large nesting colony of Green Herons (*Butorides virescens*) was located in May 1966 along the river just below South Holston Dam in Sullivan County, Tennessee. A total of ten active nests was observed and possibly a few others had been active but were discovered too late to determine their status for the season.

Unlike most of the heron family, the Green Heron does not often nest in colonies but usually as individual pairs. Such nestings are more common along the coastal regions. Arthur Cleveland Bent states (*Life Histories of North America Marsh Birds,* Bull. 135, U. S. Nat. Museum, 1926): "The height of the nest is also very variable, and although most nests are placed from 10 to 20 feet from the ground, they may be found in the tops of high trees, or, on the other hand, on low bushes or even on the ground."

On 26 April, 1966, the writer, observed one or more birds flying to and from an overgrown area of honeysuckle and pines. The area is about two-hundred yards from the South Holston River. On 4 May and 8 May the same activity was observed. On 15 May a single nest was located containing four eggs. This was the only nest noticed.

On 22 May, Charlie Smith and the writer returned to check the progress of incubation and discovered four additional nests. One contained five eggs and the remainder four young each. Several of the young were half grown and able to scamper to the outer branches of the tree when the climber approached the nest. On 24 May, three additional nests contained young and two held a total of six eggs.

Five days later, Tim Hawk, Charlie Smith and the writer measured the nests and banded several young. It was not possible to measure every nest but nine were found to average about 26 feet (extremes: 18-34) in height above ground. Six of these were between 24 and 29 feet. Two were 20 feet or less and one was 34 feet high. No two nests were closer than 29 feet. The maximum distance between any two adjacent nests being 77 feet. Six nests averaged 12 inches in diameter (extremes: 10-14) and the thickness averaged about 4.5 inches (extremes: 3-6). All were found in Virginia Pines (*Pinus virginiana*).

The average height above ground for eleven nests found in Kentucky has been listed as 14-8 feet (2.5-40) (THE BIRDS OF KENTUCKY, Ornithological Monographs No. 3, American Ornithologists' Union, Robert M. Mengel, page 162, 1965). Douglass, Bierly and Goodpasture reported (THE MIGRANT 36:76) nests near Basin Springs at Nashville: ". . . in separate cedars, about 15 feet apart, at heights of approximately 12, 20 and 25 feet."

Three nestlings, large enough to retain bands, were banded on 29 May and one was recovered dead under power lines near a power plant about one mile from the Roanoke River near Salem, Virginia on 11 July, 1966. This is about 125 miles northeast from the nesting colony. The bird was warm and limber when found. Mr. Garland H. Sheppard, of Salem, wrote that the neck seemed to be broken.

WALLACE COFFEY, 508 Spruce Street, Bristol.

THE OCCURRENCE OF THE WILLET AT CHATTANOOGA—Prior to the fall 1965 migration period, records of the Willet (*Catoptrophorus semipalmatus*) were non-existent in Chattanooga and surrounding area. Ganier, in his *Distributional List of the Birds of Tennessee* (1933), lists the Willet as being a very rare transient in west Tennessee, with no classification as to its status in either middle or east Tennessee, due to the fact that no records for this species existed for these parts of the State. Comstock, in his paper, *Birds of Hamilton County, Tennessee* (1961), also failed to list the species from this area, again due to the lack of records. In direct contrast to these previous negative results, the Willet has been recorded in Chattanooga or the surrounding area for the last three migration periods.

The first record of the Willet in Chattanooga was established when a single individual was seen on 3 July, 1965 at a stock pond, adjacent to the Amnicola Marsh, by Mr. Kenneth Dubke and the writer. The bird was observed at length, both on the ground and flying, with its distinctive call being given often. We had no idea this was to be the first of several records for this species. Again, during the same migration period, a single individual was recorded on 23 August, 1965 below Chickamauga Dam by the writer. The spring migration of 1966 saw an additional record when seven birds were observed on 1 May, 1966 below Chickamauga Dam by Mr. James Garrett, Mr. Bill Phillips and the writer. The species made no further appearance during that migration period, but during the most recent migration period, fall 1966, the species was once again recorded when a single individual was seen on 20 August, 1966 at Savannah Bay by Dr. W. K. Butts, Mr. James Garrett and the writer. These observations total to four recordings of ten individuals within the last three migration periods; certainly a sudden and noteworthy occurrence.

JON E. DEVORE, 4922 Sarasota Drive, Hixson, Tennessee 37343.

CYCLICAL INTERACTION OF CLIFF SWALLOWS AND HOUSE SPARROWS—Cliff Swallows (*Petrochelidon pyrrhonota*) are common in Hardin and neighboring counties, nesting on Pickwick Dam and under concrete highway bridges. The number of Cliff Swallows nesting on Pickwick Dam increased from 1957 to 1959, decreased yearly until no nests were noticed in 1962, then increased to an estimated (the structure of the dam hides many of the nests) 500 to 1,000 nests in 1966. At other locations a similar, but not simultaneous, cycling has been noticable.

House Sparrow (*Passer domesticus*) nesting populations at the same locations, dependent upon the Cliff Swallow nests for nesting houses, also vary from year to year. It appears that a small number of House Sparrows can seldom evict nesting Cliff Swallows, and that they first use the Cliff Swallows' nests after the Cliff Swallows have left. As the House Sparrows become established and their number increases they are able to usurp partially finished Cliff Swallow nests, eventually driving the Cliff Swallows away. In the following seasons the Cliff Swallow nests become filled with nesting material, fouled by use, or are destroyed by weather, and the House Sparrows are forced away for lack of nesting sites. The location is then again suitable for Cliff Sparrows.

This explanation indicates that alternative nesting locations are necessary if Cliff Swallows are to maintain a stable population in any area. At some locations it might be possible to retain the Cliff Swallow colony by removing the nests after the young are fledged.

DAVID E. PATTERSON, Harbert Hills Academy, Olive Hill.

COWBIRD EGGS IN CATBIRD'S NESTS—In a review of the book by Herbert Friedmann, "Host relations of the parasitic Cowbirds," 1963, (Auk, 81:234), my esteemed friend Harold Mayfield of Waterville, Ohio, includes this statement; "For many species of hosts the data are surprisingly scanty, and even small additions to knowledge would be worthy of publication. For example, the Catbird's relation to the cowbird offers a challenging opportunity for study in many a person's backyard. The Catbird is reported to be an infrequent host, and certainly it is so if we use Cowbird eggs found or Cowbird young fledged as a criterion. But we also know that the Catbird ordinarily throws out a foreign egg promptly. So a human visitor is not likely to find the intruding egg unless he happens along at just the right moment, probably in the first few minutes of daylight, since the cowbird usually lays during the semi darkness of early dawn and its new egg may be ejected at the time of the Catbird's first visit of the morning. Surely, many such instances escape notice, and since the cowbird is not implicated, the disappearance of Catbird eggs might not be attributed to the Cowbird, and sets of one, two and three eggs may sometimes pass erroneously as complete clutches." The reviewer, who is also a careful student of cowbirds himself, also calls attention to the variable degree of cowbird egg reception by certain species in various parts of the country.

It so happened that during the summer of 1966, in my own "'backyard," I had the opportunity to find Cowbird eggs in two successive nests of a Catbird. The first nest was built 6 feet up, near the top of a bush honeysuckle (*Lonicera fragrantissima*) which formed part of a massing of shrubs around the flower garden. On 22 May, I looked into the nest with a mirror and found it to contain 2 eggs of the Catbird and one of the Eastern Cowbird. The time was mid-morning. I removed the Cowbird egg as I always do, since the young Cowbird is well known to outgrow and to push its nestmates out before fledging. On 24 May, the nest was found to contain 4 eggs of the Catbird and the parent was incubating. On 6 June, at 9 a.m., the nest held 3 newly hatched young plus one egg which hatched later. The incubation period was 13 days. Five days later, the nest was found pulled over and empty; presumably the work of a cat.

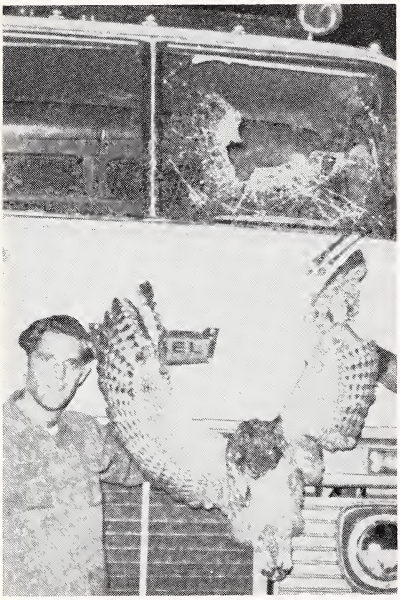
The Cowbirds, I assume the same pair, then built a new nest 8 feet away from the first one, at the same height and in a similar shrub. On 3 July, the nest held 2 fresh eggs of the Catbird and one of a Cowbird which I removed. On 8 July, the Catbird was incubating her 2 eggs and was so gentle as to permit my hand to nearly touch her. I was away on the date of hatching but on 16 July, she was brooding young in the nest. On the 24th, they were still in the nest, well feathered, but at 8 a.m. next morning they were out in nearby shrubs and the parents were scolding. Assuming 13 days again for incubation, fledging had required 9 days.

While the Cowbird had been thwarted in these two attempts to produce young, yet she—presumably the same female—was persistent and imposed upon the nests of two towhees which I did not find during occupancy. On 5 August, a female towhee, when making one of her regular rounds to the feeding shelf at our breakfast room window, was accompanied by a recently fledged Cowbird. The latter begged so insistently for food, that during the several minutes at the shelf, the foster-parent ate nothing herself. This procedure occurred regularly from then on even though the young interloper became able to feed itself. I trapped this young one and disposed of it. About two weeks later, another towhee visited the shelf with another fledged Cowbird about 10 days out of the nest. As in the first case, this couple came regularly for some days and then ceased to come. For the reasons stated above, I think it is best to remove Cowbirds eggs when found unless perhaps one is making a special study of this species. In the case of the two Catbirds nests mentioned, this did not disrupt normal laying or incubation and I have found this to be true in the case of other nests from which I removed Cowbird eggs.

In an earlier issue of THE MIGRANT (1937, 8:38) Burt L. Monroe recorded an instance, which I also witnessed, of where a Cowbird, unable to find a fresh-built nest, had deposited 2 eggs in a dilapidated last year's nest of a Red-eyed Vireo.

ALBERT F. GANIER, 2112 Woodlawn Dr., Nashville.

UNUSUAL OWL CASUALTY—A Great Horned Owl (*Bubo virginianus*) was killed in an unusual accident when it flew into a diesel tractor-and-trailer truck along a straight stretch of U.S. 23 highway about two miles south of Big Stone Gap, Wise County, Virginia. The incident occurred about 4 a.m. on the morning of 20 October, 1966.



Garry Smith and owl.

The driver, Garry Smith of Kingsport, Tennessee, said the bird flew into the front window of his tractor on the driver's side. The window broke under the impact and the owl went through the cab coming to rest in the sleeper behind the driver.

Smith suffered minor cuts about the head and face from flying glass but was able to continue on to Big Stone Gap. The owl was killed instantly.

WALLACE COFFEY, 508 Spruce Street, Bristol, Tenn. 37620.

T.O.S. STATE MEETING
LAND BETWEEN THE LAKES
PARIS LANDING STATE PARK
KENTUCKY LAKE, TENNESSEE
MAY 5 - 6 - 7, 1967

THE PRESIDENT'S MESSAGE

At this time of the year, we begin to look forward to seeing each other again at our Spring meeting. Where else can you find more actual good fellowship and interesting conversation than at a gathering of bird students? Memphis has some delightful surprises for us and we know it will be worth your presence. As we turn the page of a New Year, let us each determine to give as much time, thought and study as possible to making T.O.S. effective in conservation and scientific study. We want to go forward, not stand still. Our Board of Directors and our very active Committees will present new plans and changes for your consideration, give these careful thought. I cannot stress enough the participation in T.O.S. by YOU. True, T.O.S. is unique in that its members have no *obligation* except a few dollars annual dues. However, you are missing a great deal if you do not contribute constructively. And there are so many ways in which you can do this.

Of course, our most important contribution can be to THE MIGRANT. Our "Migrant" has always been, and still is, our grestest medium of exchange of information, cooperation and ideas. Without it T.O.S. would collapse. It is definitely a scientific publication but it must continue to secure and keep the interest of that vast majority of bird students who comprise the bulk of our membership and who cannot as yet be classed as professional in ornithology. It is *your* magazine—your contributions are absolutely necessary for its continuation. In the past few months, your Editor and I have made some effort to prod the Chapters into submitting more material. We have had some interesting and enthusiastic responses but I would not say Dr. Herndon has been over-whelmed with an avalanche of material. However, we are hoping for a delayed "action" and that our Editorial Staff will yet receive a back-log of material that will delight their hearts.

To those of you who refuse to believe that with diligent study and research you too have something to contribute to the MIGRANT, let me suggest you offer your efforts in an administrative capacity. Also, you can try to interest those members who are luke-warm or not taking their birding seriously. Few activities are as rewarding as birding. There are many ways in which we can more actively promote conservation. Also, we can work toward developing more "inter-chapter" fellowships throughout the year.

You will be hearing soon both from your officers and Memphis of plans for our State Meeting. *Plan* to be there and *participate* in *all* phases of our program—the fellowship, the field trips, the business session, the paper session.

Apropos of nothing, I heard recently that there are now *eleven million* bird-watchers in the U. S. What percentage of that should be T.O.S. members?

See you on May 5.

KAY GARLINGHOUSE, 2012 Cedar Drive, Knoxville, Tennessee.

THE SEASON

CHARLES R. SMITH, EDITOR

During the months of September and October, temperatures averaged from three to five degrees below normal across the state. Precipitation was generally from about one to three inches above normal for most areas across the state. Precipitation and temperature data were not yet available for the month of November.

Chattanooga reported a marked decrease in the number of waterfowl in that area for this report period. Reports of birds of prey were more numerous in the Elizabethton area than in previous seasons. Observations of Purple Finch, Pine Siskin, and other northern finches were very few or lacking from most areas. This is in marked contrast to last winter's northern finch invasion.

MEMPHIS—*Grebes-Sparrows*: Black-bellied Plover: last date, 19 Nov. (1) LA (LC). Dunlin: 4 Dec. (1) PL (BC). Bonaparte's Gull: 10 Nov. (9) LA (LC, HD, TC). Wood Thrush: 10 Nov. (1 banded) MFS (WLW). The gull, uncommon; others later than previous seasons.

Locations: LA—Lake Alpe ("Booker reservoir"), Crawfordsville, Ark., PL—Porter Lake (at Horseshoe L.), Bruins, Ark., MFS—Memphis.

Observers: BC, LC—Mr. and Mrs. Ben B. Coffey, Jr., TC—Mrs. Ed Carpenter, HD—Mrs. Henry Dinkelspiel, WLW—Wendell L. Whittemore.

BEN B. COFFEY, JR., 672 N. Belvedere, Memphis 38107.

NASHVILLE—*Loons-Ducks*: Common Loon: 4 Nov. (1), 9 Nov. (7) BL (MCW &EE), 10 Nov. (4) RL (MCW). Horned Grebe: 24 Sept. (1), 5 Oct. (1) RL (MCW, EE), 25 Nov. (14) OHL (LOT). Pied-billed Grebe: about normal with the largest number being 6 Sept. (14) RL (MCW). Great Blue Heron: scarce. Green Heron: 24 Sept. (5) (NC). Black-crowned Night Heron: 18 Oct. (2) RL (MCW). Canada Goose: 24 Sept. (8) RL (MCW et al.), 5 Nov. several thousand in a heavy rain DRR (NC). Snow Goose: 5 Nov. approx. (100) DRR (NC). Blue Goose: 5 Nov. several hundred DRR (NC). Mallard: 19 Sept: (22) OHL (LOT). Gadwall: late, 13 Nov. (1) BL (HCM). Pintail: 24 Sept. (1) ACM (AFG). Green-winged Teal: 1 Nov. (2) BL (HEP). Blue-winged Teal: 1 Nov. (3) BL (HEP). American Widgeon: fairly scarce, the first being 11 Oct. (12) BL (HEP). Shoveler: 13 Sept. (1) female, nearly a month earliest ever. (She stayed until 25 Oct. when joined by a male.) Ring-necked Duck: 10 Oct. (1) BL (HEP), scarce during the period. Canvasback: 15 Nov. (6) RL (EE). Lesser Scaup: late, 3 Nov. (36) RL (MCW). American Goldeneye: 14 Nov. (9) RL (EE). Bufflehead: 30 Nov. (1) RL (MCW). Ruddy Duck: 1 Nov. (1) BL (HEP). Red-breasted Merganser: 4 Nov. (2) BL (HEP). (Draining of the lake at Bush Farm began on 7 Oct. and it was empty by 12 Oct. Refilling began on 1 Nov. and was full by 1 Dec. This seems too late to have been much of an attraction for shore birds and must have delayed the arrival there of some species of ducks.)

Vultures-Gulls: Black Vulture: 24 Sept. (14) ACM (AFG). Osprey: 23 Sept. (1) BL (HEP). Virginia Rail: 8 Nov. (1) found dead at GHSC (REF). American Coot: 3 Oct. (3) BL (HEP), 31 Oct. (110) OHL (LOT), 11 Nov. (55) RL (MCW). Golden Plover: both 15 Sept. and Oct. (1) BL

(HEP). Black-bellied Plover: 10, 11 Nov. (1) (HEP), 13 Nov. (2) (B&LC, KAG, HCM), both BE. Common Snipe: only on 25 Oct. (1) BL (HEP). Spotted Sandpiper: last on 12 Oct. (2) BL (HEP). Lesser Yellowlegs: 1 Nov. (1) BL (HEP). Pectoral Sandpiper: 15 Oct. (8) BL (HEP). Dunlin: from 15 Oct. (1) to 25 Nov. (2) BL (HEP). Buff-breasted Sandpiper: 13 Sept. (3) BL (HEP, AFG). Herring Gull: late, 25 Nov. (1) OHL (LOT). Ring-billed Gull: 31 Oct. (3) OHL (LOT), scarce until the end of the period. Bonaparte's Gull: 31 Oct. (20) OHL (LOT).

Cuckoos-Vireos: Yellow-billed Cuckoo: a very late record with 6 & 10 Nov. (1) CP (HCM). Black-billed Cuckoo: 24 Sept. (1) RL (MCW). Common Nighthawk: last 27 Oct. (2) VC (LOT). Chimney Swift: 21 Oct. (7) (LOT). Ruby-throated Hummingbird: 29 Oct. (1) CP (HCM). Eastern Kingbird: 24 Sept. (2) SHV (HEPP et al.). Great Crested Flycatcher: 13 Sept. (1) CP (HCM). Red-breasted Nuthatch: 6 Nov. (1) (KAG). Brown Creeper: 3 Oct. (1) 2 J's (KAG). House Wren: 24 Sept. (1) 2 J's (DG). Winter Wren: 26 Oct. (2) 2 J's (KAG). Bewick's Wren: a few scattered reports. Catbird: last 29 Sept. (1) (SB). Brown Thrasher: 11 Nov. (1) CP (HCM). Wood Thrush: 5 Oct. (1) RL (MCW). Swainson's Thrush: 6 Oct. (1) 2 J's (KAG) to 9 Oct. (1) (SB). Verry: 5 Sept. (1) 2 J's (KAG). Blue-gray Gnatcher: 24 Sept. (4) (NC). Ruby-crowned Kinglet: 5 Oct. (1) RL (MCW). Cedar Waxing: 24 Sept. (2) to 12 Oct. (30) RL (MCW), 6 Nov. (1) (HCM). White-eyed Vireo: 24 Sept. (4) RL (MCW).

Warblers-Blackbirds: Black-and-white Warbler: 1 Oct. (3) CW (LOT). Worm-eating Warbler: 5 Sept. (1) EWP (AV). Golden-winged Warbler: 24 Sept. (2) 2 J's (NC). Tennessee Warbler: last 27 Oct. (1) (HEP). Orange-crowned Warbler: 7 Oct. (1) 2 J's (KAG). Nashville Warbler: 5 Sept. (1) EWP (AV) to 10 Oct. (1) 2 J's (KAG). Parula Warbler: last 24 Sept. (1) (NC). Magnolia Warbler: 5 Sept. (2) (HCM) to 26 Oct. (1) (HEP). Myrtle Warbler: first 8 Oct. (6) BL (HEP). Black-throated Green Warbler: 16 Sept. (2) (SB, HCM) to 17 Oct. (1) 2 J's (KAG). Blackburnian Warbler: 5 Sept. (3) EWP (AV) to 1 Oct. (1) CW (LOT). Yellow-throated Warbler: 24 Sept. (1) 2 J's (NC). Bay-breasted Warbler: from 12 Oct. (1) RL (MCW) to 3 Nov. (9) RL (EE). Pine Warbler: 24 Sept. (2) (NC). Pairie Warbler: 24 Sept. (2) 2 J's (NC). Palm Warbler: very late dates, 23, 24, 25 Nov. (1) CP (HCM). Ovenbird: 9 Sept. (1) WS (MCW) to 17 Oct. (1) 2 J's (KAG). Northern Waterthrush: 15 Oct. (1) (KAG). Kentucky Warbler: 24 Sept. (2) (NC). Mourning Warbler: from 6 Sept. to 1 Oct. (1) 2 J's (KAG). Yellowthroat: to 15 Oct. (1) 2 J's (KAG), and a very late date, 5 Nov. (1) DRR (HEP). Hooded Warbler: last 27 Sept. (1) (HCM). Wilson's Warbler: 27 Sept. (1) (HCM). Canada Warbler: last 24 Sept. (1) (NC). American Redstart: 7 Oct. (1) (HCM). Baltimore Oriole: 24 Sept. (2) (NC) Rusty Blackbird: 20 Nov. (35) 2 J's (HCM, HEP). Common Grackle: very scarce during the latter half of the period.

Tanagers-Sparrows: Scarlet Tanager: 24 Sept. (1) 2 J's (NC). Summer Tanager: 5 Oct. (1) (SB). Rose-breasted Grosbeak: 6 Sept. (1) to 9 Oct. (1) 2 J's (KAG). Indigo Bunting: last 26 Oct. (1) 2 J's (KAG). Purple Finch: 26 Oct. (1) 2 J's (KAG), then only a few reports. Savannah Sparrow: 28 Oct. (3) BL (HEP). Vesper Sparrow: 6 Nov. (6) CP (HCM) to 26 Nov. (1) BL (MB). Slate-colored Junco: 11 Oct. (1) 2 J's (KAG). Chipping Sparrow: to 13 Nov. (1) BV (KAG). White-crowned Sparrow: 7 Oct. (1) 2 J's (KAG). White-throated Sparrow: 3 Oct. (1) 2 J's (KAG). Swamp

Sparrow: 6 Oct. (1) 2 J's (KAG). Song Sparrow: 8 Oct. (1) 2 J's (KAG). Lapland Longspur: 13 Nov. (2) with (100) Horned Lark BL (B&LC, KAG, HCM). (Note: All records at 2 J's by (KAG) are banded birds.)

Other early and late migration dates will appear later in articles on the fall Tower kills (ARL) and on fall banding (KAG).

Locations: ACM—Ashland City Marsh, BL—Bush Lake, BV—Buena Vista Marsh, CP—Centennial Park, CW—Cheekwood, DRR—Duck River Refuge, EWP—Edwin Warner Park, GHSC—Green Hills Shopping Center, OHL—Old Hickory Lake, RL—Radnor Lake, SHV—South Harpeth Valley, 2 J's—Two Jays Sanctuary, VC—Vanderbilt Campus, WS—Warner School.

Observers: MB—Mike Bierly, SB—Sue Bell, NC—Nashville Chapter, TOS, B & LC—Ben and Lula Coffey, EE—Erline Elmore, REF—Mrs. R. E. Faitoute, AFG—Albert F. Ganier, KAG—Katherine A. Goodpasture, DG—Dan Gray, Jr., HCM—Harry C. Monk, HEP—Henry E. Parmer, LOT—Lawrence O. Trabue, AV—Alvin Vincent, MCW—Mary C. Wood.

HENRY SE. PARMER, 3800 Richland Ave., Nashville 37205.

COOKEVILLE—*Cuckoos-Woodpeckers*: Yellow-billed Cuckoo: 10, 12 Oct. (1) RA. Black-billed Cuckoo: 2 Oct. (1) RA. Whip-poor-will: 5 Sept. (1) RA. Ruby-throated Hummingbird: 10, 12 Oct. (1) RA (RH). Belter Kingfisher: 19 Nov. (2) CHL (MN). Yellow-bellied Sapsucker: 9 Sept. (1) RA (RH).

Warblers-Sparrows: Black-throated Green Warblers: 29 Sept. (1) HP (GK). Yellow-breasted Chat: 11 Sept. (1) RA (RH). Scarlet Tanager: 2 Oct. (1). Summer Tanager: 9 Oct. (1) RA (RH). Rose-breasted Grosbeak: 24 Sept. - 8 Oct. (15) RA (RH). Indigo Bunting: 2 Oct. (1) RA (RH). Purple Finch: 8 Nov. (6) HP (MW). White-crowned Sparrow: 24 Nov. (2) HP (TT).

Locations: CHL—Center Hill Lake, HP—Home Place, RA—Rickman Area.

Observers: RH—Roy Hinds, GK—Gladys Knight, MN—Martin Nowak, TT—Thelma Tinnon, MW—Marie White.

MARIE WHITE, 1218 Byrne Avenue, Cookeville 38501.

CHATTANOOGA—*Loon-Ducks*: Common Loon: 19 Nov. (1) CL. Horned Grebe: 20 Nov. (1) CL. Pied-billed Grebe: 21 Sept. (1) CD, 2 Oct. (3) HCP, 30 Oct. (1) HI, 24 Nov. (2) HCP, 28 Nov. (1) HCP. Great Blue Heron: regular in small numbers, max. 29 Nov. (18) HB. Green Heron: last 24 Sept. (4) SB. Little Blue Heron: 4 Sept. (2) SB, very late record on 19 Nov. (1) SB. Common Egret: 18 Sept. WR. American Bittern: 21 Sept. (1) TMP. Wood Ibis: 2 adult birds killed near Chattanooga in June. Canada Goose: first 16 Sept. (11) HI, approximately 4,500 at HI, scattered groups elsewhere. Snow Goose: 30 Oct. (4) SB, 4 Nov. (68) SM, 20 Nov. (9) WR). Blue Goose: 30 Oct. (9) HI, 20 Nov. (41) WR. Mallard: first 14 Sept (1) AM, regular since. Black Duck: first 30 Oct. (10) HI, max. 29 Nov. (160) BTWP. Gadwall: 30 Oct. (5) HI, 21 Nov. (92) HB. Pintail: 30 Oct. (1) HI, 20 Nov. (6) BTWP, 29 Nov. (1) BTWP. Green-winged Teal: 30 Oct.

(47) HI, 13 Nov. (1) AM, 20 Nov. (6) BTWP. Blue-winged Teal: 4 Sept. (8) SB. American Widgeon: 30 Oct. (7) HI, 21 Nov. (8) HB. Shoveler: 21 Nov. (1) HB, 28 Nov. (4) HCP. Wood Duck: regular in small numbers, max 27 Nov. (16) TMP. Redhead: 13 Nov. (6) CD. Lesser Scaup: 13 Nov. (2) CD, 20 Nov. (12) BTWP, 29 Nov. (25) BTWP. Bufflehead: 21 Nov. (1) HB. Ruddy Duck: 20 Nov. (7) BTWP. Hooded Merganser: 24 Nov. (30) HCP, 29 Nov. (15) SB. Red-breasted Merganser: 19 Nov. (3) SB.

Hawks-Owls: Sharp-shinned Hawk: 2 Oct. (1) BTWP, 21 Nov. (1) T. Red-tailed Hawk: sporadic, never more than one bird. Red-shouldered Hawk: 3 Sept. (1) H, 19 Nov. (1) SB, 24 Nov. (1) HCP, 27 Nov. (1) H. Peregrine Falcon: 1 bird, adult plumage, shot 31 Sept. at AM. Sora Rail: 30 Oct. (1) HI. American Coot: first 24 Sept. (1) SB, 14 Nov. (approx. 6,000) HB. American Golden Plover: 12 Nov. (1), 18 Nov. (1), 19 Nov. (2), all at SB. Common Snipe: first 24 Sept. (6) SB, max. 29 Nov. (55) SB. Spotted Sandpiper: 4 Sept. (1) SB, 10 Sept. (1) SB, 18 Sept. (4) AM. Solitary Sandpiper: 4 Sept. (1) SB, 24 Sept. (2) AM. Greater Yellowlegs: 30 Oct. (5) HI. Lesser Yellowlegs: 30 Oct. (1) HI. Pectoral Sandpiper: 4 Sept. (3) SB, 30 Oct. (6) HI. Least Sandpiper: 4 Sept. (4) SB, 10 Sept. (1) SB. Dunlin: 4 Sept. (1) SB, 19 Nov. (2) SB. Semipalmated Sandpiper: 4 Sept. (1) SB. Western Sandpiper: 2 Oct. (2) SB. Herring Gull: 18 Nov. (2) HB, 19 Nov. (8) HB, 29 Nov. (2) HB. Ring-billed Gull: first 30 Oct. (4) HI, max. 14 Nov. (27) SB. Common Tern: 2 Oct. (1) SB. Barn Owl: 20 Sept. (1) MB, 30 Sept. (1) AM. Great Horned Owl: 28 Sept. (1) SM.

Cuckoos-Sparrows: Yellow-billed Cuckoo: last 24 Sept. (1) AM. Common Nighthawk: last 24 Sept. (5) AM. Chimney Swift: last 2 Oct. (11) SB. Ruby-throated Hummingbird: last 24 Sept. (1) H. Yellow-bellied Sapsucker: first 6 Oct. (1) Eastern Kingbird: last 10 Sept. (1) SB. Barn Swallow: last 18 Sept. (3) AM. Red-breasted Nuthatch: first 10 Oct. (1) C. Winter Wren: first 3 Oct. (1) C. Long-billed Marsh Wren: 24 Sept. (1) SB. Hermit Thrush: first 30 Oct. (1) C. Blue-gray Gnatcatcher: last 14 Nov. (1) TMP. Golden-crowned Kinglet: first 22 Sept. (1) C. Ruby-crowned Kinglet: first 23 Sept. (2) C. Water Pipit: first 18 Nov. (5) SB. Cedar Waxwing: first 18 Oct. (20) C. Orange-crowned Warbler: 28 Oct. (1) C. Bay-breasted Warbler: 9 Oct. (1) C. Northern Waterthrush: 6 Sept. (1) C. Mourning Warbler: 1 Sept. (1) C. Wilson's Warbler: 3 Sept. (1) C. Rose-breasted Grosbeak: 23 Sept. (1) C. Indigo Bunting: 1 Oct. (358 banded) C (BB). Dickcissel: 23 Oct. (1) C. Purple Finch: first 30 Oct. (3) C. Savannah Sparrow: first 24 Sept. (12) SB. Vesper Sparrow: 29 Oct. (1) C. Slate-colored Junco: first 22 Oct. (65) J. White-crowned Sparrow: 27 Oct. (2) C. Lincoln's Sparrow: 22 Oct. (1) C. Swamp Sparrow: first 3 Oct. (2) C.

Locations: AM—Amnicola Marsh, BTWP—Booker T. Washington State Park, C—Collegedale, Tenn., CD—Chickamauga Dam, H—Hixson, Tenn., HB—Hales Bar Lake, HCP—Hamilton County Park, HI—Hiwassee Island, J—Jasper, Tenn., MB—Mocassin Bend, MP—Morse Pond, SB—Savannah Bay, SM—Signal Mountain, Tenn., T—Tiftonia, TMP—Tyner Minnow Ponds, WR—Woods Resevoir.

Observers: BB—Benton Basham, JD—Jon DeVore, KD—Kenneth Dubke, AW—Adele West.

JON E. DEVORE, 4922 Sarasota Drive, Hixson 37343.

BRISTOL—*Loons Mergansers*: Common Loon: first 30 Oct. (11) BL; 15 Nov. (5) SHL. Horned Grebe: 15 Nov. (4) SHL. Pied-billed Grebe: first 2 Oct. SHL until 20 Nov. (1) CR, Va. Great Blue Heron: first 2 Oct. (1) SHL; maximum 20 Oct. (5) BL. Black Duck: 25 Nov. (8) SHL. American Widgeon: 2 Oct. (1) SHR. Wood Duck: 18 Oct. (6) SHR; 30 Oct. (10) BL. Lesser Scaup: 15 Nov. (1) SHL. Hooded Merganser: first 30 Oct. (1) BL; maximum 13 Nov. (16) SHL; 20 Nov. (9) CR, Va.

Vultures-Hawks: Turkey Vulture: 25 Sept. (1); 1 Oct. (6); 15 Nov. (2); 25 Nov. (2). Black Vulture: 27 Oct. (22) SHL (WC, TH). Cooper's Hawk: 30 Oct. (1) (EV). Bald Eagle: 24 Nov. (1) SHL (BN). Marsh Hawk: 6 Nov. (1) FH (WC, DM). Sparrow Hawk: 30 Oct. (1); 15 Nov. (1).

Grouse-Swift: Ruffed Grouse: 20 Oct. (1—well in city limits). American Coot: first 27 Oct. (54) SHR until 20 Nov. (4) CR, Va. Killdeer: 2 Oct. (7); 23 Oct. (1). American Woodcock: 24 Nov. (1) (RV). Ring-billed Gull: 15 Nov. (5) SHL. Yellow-billed Cuckoo: last 3 Oct. (1). Screech Owl: eight reports during period. Common Nighthawk: maximum 10 Sept. (33); last 16 Oct. (5). Chimney Swift: last 1 Oct. (3).

Woodpeckers-Creeper: Yellow-shafted Flicker: peak numbers about 26 Sept.; last 22 Oct. (3). Red-bellied Woodpecker: regular since 25 Sept. Red-headed Woodpecker: 23 Sept. (23) MFT migration passing (WC, LH, ES). Yellow-bellied Sapsucker: first 8 Oct. (1). Eastern Phoebe: 2 Oct. (1). Wood Pewee: last 2 Oct. (1). Horned Lark: 2 Oct. (12). Blue Jay: migration peak about 16 Sept. and a few since. White-breasted Nuthatch: regular since 16 Sept. Brown Creeper: first and only 25 Oct. (1).

Wrens-Shrike: Winter Wren: first 1 Oct. (1); 18 Oct. (1). Catbird: last 1 Oct. (6). Brown Thrasher: last 25 Nov. (1). Robin: 18 Oct. (4); maximum 12 Oct. (200). Swainson's Thrush: first 24 Sept. (1); last 8 Oct. (4). Eastern Bluebird: one to six regular. Blue-gray Gnatcatcher: last 24 Sept. (1). Golden-crowned Kinglet: first 15 Nov. (1). Ruby-crowned Kinglet: 18 Oct. (1) first. Water Pipit: 13 Nov. (75) SHL (WC). Cedar Waxwing: first 12 Oct. (10). Loggerhead Shrike: regular and increasing since 2 Sept.

Warblers: Blue-winged Warbler: 16 Sept. (1) (WC) our second fall record. Tennessee Warbler: 18 Sept. (2). Nashville Warbler: 16 Sept. (1). Yellow Warbler: last 18 Sept. (3). Magnolia Warbler: 23 Oct. (1). Cape May Warbler: 26 Sept. (1). Myrtle Warbler: first 18 Oct. (3). Black-throated Green Warbler: 16 Sept. (1). Blackburnian Warbler: 18 Sept. (2). Yellow-throated Warbler: 16 Sept. (1). Prairie Warbler: 4 Sept. (2); 10 Sept. (2); 18 Sept. (5). Palm Warbler: 18 Sept. (2); 25 Sept. (1); 1 Oct. (4); 2 Oct. (9). Ovenbird: last 1 Oct. (4). Yellowthroat: last 1 Oct. (3). Wilson's Warbler: 25 Sept. (1). American Redstart: 18 Sept. (1).

Blackbirds-Finches: Red-winged Blackbird: 25 Sept. (1) last. Baltimore Oriole: last 18 Oct. (1). Common Grackle: peak migration 5 Oct.; last 11 Nov. (1). Brown-headed Cowbird: last 23 Oct. (30). Scarlet Tanager: last 25 Sept. (1). Summer Tanager: last 21 Sept. (1). Rose-breasted Grosbeak: first 24 Sept. (2); last 1 Oct. (9). Indigo Bunting: last 24 Sept. (1). Rufous-sided Towhee: last 30 Oct. (1). Slate-colored Junco: first at lower elevations HM 16 Oct. (6). White-throated Sparrow: first 18 Oct. (6). Swamp Sparrow: first 1 Oct. (2).

Locations: BL—Boone Lake, CR, Va.—Clear Creek Reservoir, Washington County, Virginia, FH—Fish Hatchery near Tri-Cities Airport, HM—Holston Mountain, Sullivan Co., MFT—Mendota Fire Tower, Clinch Mtn., Virginia, SHL—South Holston Lake, Tenn., SHR—South Holston River.

Observers: JA—Mrs. Judith Abbott, BB—Bill Bridgforth, Jr., CC—Mrs. Carolyn Coffey, WC—Wallace Coffey, EF—Mrs. Earl Fransciso, EV—Enno vanGelder, RV—Roger vanGelder, TH—Tim Hawk, LH—Lee R. Herndon, DM—David McPeak, BN—Bob Nicar, ES—E. E. Scott, CS—Charles R. Smith, BW—Bob Wagner.

WALLACE COFFEY, 508 Spruce Street, Bristol 37620.

ELIZABETHTON—*Loons-Mergansers*: Common Loon: first 19 Oct. (3) BL; max. 30 Oct. (12) BL. Horned Grebe: 19 Nov. (3) BL, 25 Nov. (14) BL. Pied-billed Grebe: first 9 Sept. (1); max. 11 Oct. (24) WiL (FW). Double-crested Cormorant: 19 Nov. (1) PHL (WC, CRS). Great Blue Heron: first 9 Sept. (1) RC; max. 11 Nov. (12) PHL. Green Heron: last 8 Nov. (1) (GD, HD), a rather late date. Mallard: first 9 Sept. (4) RC. Black Duck: first 30 Oct. (10). Gadwall: first 30 Oct. (3). Pintail: 25 Nov. (1) (LRH). Green-winged Teal: 9, 14 Sept. (1) AS; 2 Oct. (1). Blue-winged Teal: last 25 Oct. (1). Wood Duck: regular to 11 Nov. (1); no records since. Ring-necked Duck: first 2 Oct. (1); max. 24 Nov. (23) WiL. Lesser Scaup: 2 birds throughout summer and fall on WiL, max. 30 Oct. (315) BL. Common Goldeneye: 18 Sept. (1) WiL, 11 Oct. (1) WiL (apparently an injured bird). Bufflehead: 2 birds throughout summer and fall on WiL; max. 19 Nov. (17). Ruddy Duck: 6 Nov. (1) BL. Hooded Merganser: first 30 Oct. (21) BL. Red-breasted Merganser: 11 Nov. (5) BL (LRH).

Vultures-Terns: Black Vulture: 11 Nov. (2). Cooper's Hawk: present throughout Sept., Oct., Nov. Red-tailed Hawk: present throughout Sept. Oct., Nov. Broad-winged Hawk: 26 Oct. (15) (RDM), a rather late date. Golden Eagle: 15 Sept. (1) EGC (LRH). Marsh Hawk: 10 Sept. (1). Osprey: 2 Oct. (1) AS. Peregrine Falcon: 25 Nov. (1) BL (LRH et al.). American Coot: first 2 Oct. (2). Semipalmated Plover: first 9 Sept. (5) AS; last 2 Oct. (3) AS. American Woodcock: 29 Oct. (4) MC (CRS). Common Snipe: first 16 Oct. (1). Black-bellied Plover: 21 Sept. (1) AS (WAB, WC, CRS). Solitary Sandpiper: 2 Oct. (1) AS. Lesser Yellowlegs: first 9 Sept. (1) AS; last 8 Noc. (1) AS. Pectoral Sandpiper: 14 Sept. (4) AS. Least Sandpiper: first 9 Sept. (11) AS; last 2 Oct. (1) AS. Semipalmated Sandpiper: first 9 Sept. (4) AS; last 2 Oct. (1) AS. Western Sandpiper: 14 Sept. (1) AS (WAB, WC, CRS). Stilt Sandpiper: 14 Sept. (1) AS (WAB, WC, CRS). Herring Gull: first 19 Oct. (1). Ring-billed Gull: first 30 Oct. (30). Black Tern: 14 Sept. (1) AS.

Cuckoos-Vireos: Yellow-billed Cuckoo: last 2 Oct. (5). Great Horned Owl: 2 Oct. (2) MC, 28 Oct. (1) MC. Barred Owl: 9 Sept. (2), 2 Oct. (1). Nighthawk: last 16 Oct. (1). Chimney Swift: last 9 Oct. (30). Ruby-throated Hummingbird: last 11 Oct. (1). Red-headed Woodpecker: 9 Sept. (1), 22 Oct. (2), 15 Nov. (1). Yellow-bellied Sapsucker: first 2 Oct. (1). Hairy Woodpecker: 10, 27 Sept. (1), 23 Oct. (1). Yellow-bellied Flycatcher: 15 Sept. (2) (LRH). Wood Pewee: last 2 Oct. (10). Barn Swallow: last 2 Oct. (1). Red-breasted Nuthatch: very scarce, with only scattered records. Brown Creeper: 30 Oct. (1), 6 Nov. (1). House Wren: last 9 Oct. (1). Catbird: last 21 Oct. (2). Brown Thrasher: 15 Nov. (1) AS (GD, HD). Hermit

Thrush: 13 Nov. (1), 24 Nov. (1). Swainson's Thrush: 9 Sept. (2), 2 Oct. (32). Gray-cheeked Thrush: 24 Sept. (1), 2 Oct. (8), 16 Oct. (1). Veery: last 15 Sept. (1). Blue-gray Gnatcatcher: last 10 Sept. (2). Ruby-crowned Kinglet: first 16 Oct. (1). Water Pipit: 10 Sept. (2), 2 Oct. (2), 22 Oct. (30). White-eyed Vireo: last 2 Oct. (3). Yellow-throated Vireo: 2 Oct. (1). Solitary Vireo: last 2 Oct. (2).

Warblers-Sparrows: Black-an-white Warbler: last 12 Oct. (1). Tennessee Warbler: first 10 Sept. (15); last 16 Oct. (2). Orange-crowned Warbler: 2 Oct. (1), 3 Oct. (1) MC (CWF). Nashville Warbler: 2 Oct. (1). Magnolia Warbler: 18 Sept. (1), 2 Oct. (1), 11 Oct. (1). Black-throated Blue Warbler: last 2 Oct. (1). Myrtle Warbler: first 6 Oct. (4). Black-throated Green Warbler: last 2 Oct. (1). Blackburnian Warbler: last 24 Sept. (1). Chestnut-sided Warbler: last 10 Sept. (1). Bay-breasted Warbler: 2 Oct. (1), 16 Oct. (1). Prairie Warbler: last 16 Oct. (1). Palm Warbler: 23 Sept. (6), 2 Oct. (13), 23 Oct. (2). Ovenbird: last 2 Oct. (5). Northern Waterthrush: 5 Sept. (1), 2 Oct. (5). Yellowthroat: last 16 Oct. (1). Hooded Warbler: last 18 Sept. (1). American Redstart: last 2 Oct. (4). Bobolink: 5 Sept. (3) HM (FWB). Rusty Blackbird: first 6 Nov. (17). Brewer's Blackbird: 24 Nov. (2) HR (LRH). Scarlet Tanager: last 2 Oct. (2). Summer Tanager: last 2 Oct. (2). Rose-breasted Grosbeak: last 15 Oct. (1). Blue Grosbeak: 2 Oct. (1). Indigo Bunting: last 16 Oct. (2). Purple Finch: only 29 Oct. (1) MC (CRS). Pine Siskon: 23 Oct. (1) RM, 30 Oct. (2) RM, 13 Nov. (3) LPN, 20 Nov. (1) RM (all by FWB). Savannah Sparrow: first 2 Oct. (9. Vesper Sparrow: 5 Sept. (1) HM. Chipping Sparrow: last 16 Nov. (3) (LRH), a rather late date. White-crowned Sparrow: first 22 Oct. (1). White-throated Sparrow: first 16 Oct. (1). Fox Sparrow: first 30 Oct. (1). Lincoln's Sparrow: 20 Sept. (1) (LRH), 21 Oct. (1) (LRH). Swamp Sparrow: first 12 Oct. (1).

Locations: AS—Austin Springs area of Boone Lake, BL—Boone Lake, EGC—Elizabethton Golf Course, HM—Hump Mountain, HR—Hampton Starling Roost, LPN—Lake Phillip Nelson, MC—Milligan College, PHL—Patrick Henry Lake, RC—Roan Creek area of Watauga Lake, RM—Roan Mountain, WiL—Wilbur Lake.

Observers: FWB—Fred W. Behrend, WAB—William A. Bridgforth, Jr., WC—Wallace Coffey, GD—Mrs. George Dove, HD—Mrs. Harold Dillenbeck, CWF—C. W. Fairbanks, LRH—Dr. Lee R. Herndon, RDM—Roby D. May, CRS—Charles R. Smith, FW—Frank Ward.

CHARLES R. SMITH, Route 2, Johnson City 37601.

Mrs. Leon F. Cross, charter member of the Chattanooga Chapter, died on 25 October, 1966, following a 12-day illness. Ellen was a faithful member, being regular in attendance at meetings and field trips, and holding office on more than one occasion. In addition to her interest in birds and plants, she belonged to several other organizations where she was always a working member. She had one daughter, Barbara, to whom our deepest sympathy is extended.

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DEVOTED TO TENNESSEE BIRDS

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Most articles published in THE MIGRANT are written by T. O. S. members and comprise their major contribution toward carrying out the Society's purposes. The Editor, like other officers, receives no remuneration for the considerable work he does so the proper preparation of copy will help toward reducing his work. All manuscript should be typed on one side of 8½x11 paper, double spaced, and with good margins. Provide a concise, meaningful title and, where needed, subtitles within the text. Footnotes are not used. Bibliography, when used, should be brief. Examine past issues of THE MIGRANT and follow the style there used, noting that "main articles" and Round Table items are set up differently. Acceptable for inclusion are articles describing the habits of birds as noted from original observations in Tennessee or adjacent areas. Reports on occurrence of unusual species should give full data on the observation so that the record may be evaluated. The value of this publication depends upon the correctness of what it presents so accuracy of statement and identification are obvious requirements. In addition to such articles, are reports on our regularly scheduled projects, such as Spring Migration, Spring Field Counts, Breeding Bird Counts, Hawk Migration, and the Christmas Census. Each of these are reported upon by duly appointed leaders and it is their duty to see that questionable records are eliminated.

THE MIGRANT

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VOL. 38 MARCH 1967 NO. 1

OBSERVATIONS AT A UNIQUE FARM IN KNOX COUNTY

BY FRED J. ALSOP, III

This paper is a record of the birds seen on an experimental plant science farm by members of the Knoxville Chapter of T. O. S. and the author. The period covered by the sightings extends from 18 September, 1966, to 3 December, 1966.

The farm itself, is a singular area in its attraction of birds. Both the topography and the variety of foods there extend a "welcome mat" to many different avian forms.

The farm, owned by The University of Tennessee and officially called the Plant Science Farm, is bounded on three sides by the waters of Fort Loudoun Lake, and on the fourth by the Alcoa highway.

Most of the farm's 212 acres consists of flat, river-bottom land only a few feet in elevation above the 812 foot level of the lake. This gradually rises into gently rolling hills as one travels from the lake to the highway. At the merger of flat land and hill, a marsh is formed by the convergence of several drainage ditches that carry the run-off water to a pumping area. Most of the area surrounding the farm is second growth deciduous forests with a scattering of coniferous trees. No livestock is raised, so the wildlife, for the most part, is unmolested.

In addition to the diversity of habitat, there is a menu that offers something for almost any Tennessee bird. This fall the marsh abounded in small fish. Turtles were present, as were several species of frogs. Grain feeders find wheat, barley, oats, rye and such large grains as corn, soy beans, grain sorghum, sudan grass and millet. Also to be found were tomatoes, sweet corn and strawberries.

My first visit to the area was made in a misty rain on 18 September, in the company of Mrs. E. E. Overton. As I walked through the gresses at one end of the marsh, a Sora (*Porzana carolina*) flushed and flew deeper into the cattails and willows. Another step produced a second Sora from the same clump of grass. It fluttered weakly away and joined the first. Determined to see the birds again, we criss-crossed the area and after several minutes of effort, the marsh produced a third bird. This individual seemed a little stronger of wing and had buff-colored wing patches. We watched it drop lightly into a clump of marsh grass and carefully marked the spot. A careful search revealed a

TABLE A

SPECIES (TOTAL 66)	18 Sept.	25 Sept.	2 Oct.	8 Oct.	15 Oct.	16 Oct.	5 Nov.	16 Nov.	26 Nov.	3 Dec.
Horned Grebe	....	....	....	....	....	....	....	....	....	2
Great Blue Heron	....	....	....	....	....	....	....	3	1	....
Green Heron	3	1	....	....	....	....	....	....	....	....
Least Bittern	1	1	1	1	....	....	....	....	....	....
Mallard	....	....	....	....	....	....	....	....	3	15
Black Duck	....	....	....	....	....	....	3	....	....	....
Pintail	....	....	....	....	....	....	2	....	....	....
Green-winged Teal	2	....	....	....	....	....	....	9	....	....
Blue-winged Teal	5	....	....	....	....	....	1	....	....	....
Shoveler	....	....	....	....	....	....	1	....	....	....
Ring-necked Duck	....	....	....	....	....	....	1	....	....	....
Cooper's Hawk	. ..	....	....	....	....	....	....	....	....	1
Red-shouldered Hawk	....	....	....	....	....	....	....	....	1	....
Bobwhite	2	18	....	5	....	....	5	....	....	....
Sandhill Crane		Nov. 15th								
Sora	2	2	....	....	....	....	....	....	....	....
American Coot	....	....	....	....	....	....	4	6	....	....
Black-bellied Plover	....	8	3	3	....	1	....	....	....	....
Golden Plover	....	....	....	....	1	1	1	1	1	....
Killdeer	10	15	15	12	10	8	30*	30*	30*	1
Common Snipe	....	2	12	10	....	18	3	....	8	8
Spotted Sandpiper	....	1	....	....	....	....	....	....	....	....
Pectoral Sandpiper	2	2	4	4	4	1	....	....	....	....
Long-billed Dowitcher	....	...	1	1	....	....	....	....	....	....
Herring Gull	....	....	....	....	....	....	....	....	....	3
Ring-billed Gull	1	....	....	....	....	....	....	7	....	....
Rock Dove (Pigeon)	5	3	2	.. .	....	....	1	....	....	....
Mourning Dove	2	3	8	4	3	3	15*	15*	30*	35*
Chimney Swift	15	30*	20*	....	....	....	....	....	....	....
Belted Kingfisher	1	1	2	....	....	....	....	1	2	....
Yellow-shafted Flicker	3	6	5	5	1	2	1	....	1	....
Downy Woodpecker	....	1	3	....	....	....	....	....	1	....
Red-bellied Woodpecker	....	....	1	....	....	....	....	....	....	....
Pileated Woodpecker	....	1	....	....	....	....	....	....	....	....
Wood Pewee	....	1	....	....	....	....	....	....	....	....
Horned Lark	7	10	10	10	....	8	....	4	....	3
Rough-winged Swallow	2	2	....	....	....	....	....	....	....	....
Barn Swallow	8	....	....	....	....	....	....	....	....	....
Cliff Swallow	3	....	.. .	....	....	....	....	....	....	....
Blue Jay	2	15	8	5	9	8	5	....	....	....
Crow	40*	60*	50*	60*	100*	40*	70*	300*	50*	300*
Carolina Wren	3	2	5	3	2	1	1	....	1	1
Mockingbird	....	1	....	....	....	....	....	....	....	....
Brown Thrasher	....	1	....	....	....	....	....	....	....	....
Robin	....	2	....	....	....	....	....	....	....	....
Swainson's Thrush	1	....	....	1	1	....	....	1	1	....
Starling	5	3	3	8	5	11	50*	40*	75*	150*
Yellow Warbler	1	....	....	....	....	....	....	....	....	....
Magnolia Warbler	....	1	....	....	....	....	....	....	....	....
Myrtle	....	....	1	....	....	....	....	....	....	....
Palm Warbler	8	10	10	6	4	3	....	....	....	....
Yellowthroat	....	....	2	....	....	....	....	....	....	....
House Sparrow	....	....	5	....	....	....	....	....	....	....
Eastern Meadow Lark	10	10	10	10	10	10	10	10	8	10
Red-winged Blackbird	50*	50*	30*	60*	120*	80*	40*	60*	80*	150*
Rusty Blackbird	....	....	....	....	....	....	3	....	30*	40*
Com. Grackle	15	15	10	30*	30*	15	....	....	3	....
Brown-headed Cowbird	....	....	....	....	....	....	....	....	....	100*
Cardinal	5	3	2	4	2	3	2	....	4	3
Am. Goldfinch	....	4	....	3	....	....	. ..	....	3	....
Savannah Sparrow	5	35*	5	15	30*	14	10	10	3	....
Vesper Sparrow	....	....	....	....	1	....	5	....	....	....
Field Sparrow	3	2	....	....	....	....	....	....	....	....
Swamp Sparrow	....	....	....	10	5	5	....	....	....	....
Song Sparrow	12	20*	11	23	21*	29	15	18	9	10

*Estimated

small statue peering up at us with yellowish eyes. Our first Least Bittern (*Ixobrychus exilis*) froze in true bittern fashion and, though we stood within 18 inches of his upturned beak, he never blinked. We left him thus, believing I am sure, that he had never been seen.

A week later I visited the farm with Dr. James T. Tanner, zoology Professor at The University of Tennessee, as the local bird club made its annual fall count. We again found the Soras and the Least Bittern, and added eight Black-bellied Plovers (*Squatarola squatarola*). The latter, Dr. Tanner found in a strawberry patch.

On 2 October, I again was at the farm, this time with James M. Campbell and several other members of the local club. Once more we found the bittern and three Black-bellied Plovers. As we walked along the lake's edge, we discovered a shorebird sitting on a plank floating near the bank. The bird looked very much like a snipe in the early light and it was not until it flew that its voice and white rump identified it as a dowitcher. The question now was, "which one?" We found it again, feeding in a pool of run-off water and carefully noted all possible field marks from a distance of about 15 yards. Once again, we flushed the bird to gain further clues. The following week I spent several hours in the library of The University of Tennessee getting new information on the identification of dowitchers. The material I needed to confirm that our dowitcher was, indeed, a Long-billed Dowitcher (*Limnodromus scolopaceus*) came from a paper by J. C. Ogden, (THE MIGRANT 35:1-6) and another by I. C. T. Nisbet in *British Birds,* (1961). I made pictures of the same dowitcher a few days later to confirm the field marks we had noted, using a single-lens reflex, 35 m.m. camera and a 400 m.m. lens.

On 15 October, the farm turned in another unusual bird for our area, which proved to be a Knox County record. That morning I found an American Golden Plover (*Pulvialis dominica*) in the company of ten Killdeer (*Charadrius vociferus*). The next day, with Campbell to confirm my identification, I again found the bird, this time with a Black-bellied Plover. A better comparison of two plovers could not have been asked for. Not only did we see them on the ground, but flying together and calling as well. This bird was still present on 26 November.

Mrs. E. E. Overton found a Sandhill Crane (*Grus canadensis*) on the farm the afternoon of 15 November, but it apparently left during that night, for it could not be found the following day.

Table "A" contains a list of all the birds seen at the area during the period covered by this writing.

Dept. of Zoology and Entomology, University of Tennessee, Knoxville.

* * *

"Conservationist of The Year"

Albert F. Ganier holds the Governor's Award

ALBERT F. GANIER — "CONSERVATIONIST OF THE YEAR"

Mr. Albert F. Ganier has been honored as Tennessee's Conservationist of the Year for 1966. He was presented the Governor's Award statuette of a Bald Eagle at the Tennessee Conservation League's awards banquet held in Nashville on 3 December, 1966.

The award was presented to Mr. Ganier on behalf of the National Wildlife Federation and the Sears-Roebuck Foundation by James L. Bailey of the Department of Conservation, representing Gov. Frank Clement. The panel of judges making the selection included James F. Bailey, Fred Stanberry, director of the Tennessee Game and Fish Commission, and Ralph Sasser, a state soil conservationist.

Mr. Ganier needs no introduction to members of the Tennessee Ornithological Society as his contributions and accomplishments are well known. He is one of the two living founders of the T.O.S. and has served in numerous capacities. He is presently Curator.

Mr. Ganier was born at Vicksburg, Mississippi on 9 September, 1883. Having graduated in Civil Engineering from Purdue University in 1908, he accepted the position as Engineer of Design for the Nashville, Chattanooga & St. Louis Railroad and remained with that company until his retirement in recent years. Mr. and Mrs. Ganier make their home at 2112 Woodlawn Drive, Nashville and are the parents of two sons and a daughter.

He has long been recognized for his avocations of ornithology, mammalogy, paleontology, archaeology and history. He has served as president of the T.O.S., Editor of THE MIGRANT and other offices, Curator of Birds, Nashville Children's Museum 1944-; secretary of the Wilson Ornithological Society, 1918-1923 and president, 1924-1926; charter member and past-president of the Engineering Association of Nashville; Central Southern representative of the American Engineering Council 1922-1924; member of the Tennessee Academy of Science since 1923, he became president in 1926 and inaugurated the journal of the Tennessee Academy of Science in that year.

Mr. Ganier's first published papers on birds bear the date of 1899 and since that time several hundred articles have appeared. He was instrumental in securing the Backbone Ridge Route for the Natchez Trace Parkway and has served as president of the Tennessee Historical Society. In addition he has been named a fellow in the American Association for the Advancement of Science and holds membership in the Cooper Ornithological Society and the American Ornithologists' Union.

Upon presenting Mr. Ganier the Governor's Award, Mr. James Bailey stated, "The eagle symbolizes all that's great in America and this replica of our national bird symbolizes the greatness of your career."

PHOTO ON OPPOSITE PAGE COURTESY OF *THE NASHVILLE TENNESSEAN.*

ANNUAL AUTUMN HAWK COUNT 1966

BY THOMAS W. FINUCANE

FINUCANE

EDITOR'S NOTE: At the state T.O.S. meeting in 1955, Thomas W. Finucane, of Kingsport, Tennessee, volunteered to assemble the reports from the hawk counts to be published in THE MIGRANT. During the past twelve years, he has been busy accumulating data for each fall's migration. He has spent over 400 hours scanning the skies for Broad-winged Hawks and his annual climbs to the Mendota fire tower number more than 70 trips. He has been instrumental in publishing over sixty pages of reports on the hawk migrations in THE MIGRANT. Mr. Finucane has been employed as a research chemist at the Tennessee Eastman Company in Kingsport and became a member of the T.O.S. in 1945. He is a past officer of the organization.

The total hawks recorded in fall migration over the T.O.S. hawk-count area was 7521, exceeded only three times in the 17 annual counts we have made. On the basis of species: 35 Sharp-shinned, 69 Red-tailed, 29 Red-shouldered, 7255 Broad-winged, a Rough-legged, 7 Marsh, and one Pigeon Hawk; also 2 Bald Eagles, 21 Ospreys, 2 Peregrines, 8 unidentified accipiters, 33 buteos, 6 falcons, and 14 others. The halfway point came two days late, 23 Sept. The two (adult) eagles were seen on the same day, 24 Sept., at the Rogersville fire tower (2:45) and, farther south, at the Camp Creek Bald fire tower (1:15 p.m.). Next day the Rogersville fire tower had 8 species, to make a total of 9 for the weekend. The Pigeon Hawk was seen, 25 Sept., at the Elder Mt. fire tower and the Rough-legged Hawk at the Rogersville fire tower, by Tom Odom. Of the 12 species we have listed over the years, only the Golden Eagle was absent from our 1966 data.

Clouds and rain dampened the hawk project. From 10 to 22 Sept., only Friday, 16 Sept., was clear; 1984 hawks were logged at the Mendota fire tower. No other lookout was manned. A cold front moved rapidly across Tennessee, probably on Thursday, when three days of good flights began. Rain fell on all stations all day Sunday. After 22 Sept., three days of fair weather came, and good migration was reported from all stations; then there were four more days of rain. At least one lookout, and usually two or more, were manned every day, 10 to 27 Sept., except during the three rainiest days. Some data were obtained on days with heavy clouds and rain; other watches on such days yielded nothing.

Eugene Scott participated in 9 counts, with a total of 4288 hawks. Of particular interest are his weekend data, 10 & 11 Sept., made near his house just north of Nickelsville, 98 and 105 hawks, on days when the corresponding counts at the Mendota fire tower, a few miles south, were 132 and 17. During the hours when Scott was counting his 105, no hawks at all were sighted from the Mendota lookout.

Another feature of the 1966 hawk watch was the great reduction in numbers of monarch butterflies, to less than 10% of the numbers usually seen flying by the Mendota tower in September. Also I saw no "gnat towers," which we expect to see drifting down the Clinch ridge on hot days and looking like towers of smoke scattered along the knobby range. On the other hand, we see a few ravens every time we observe at the Mendota fire tower, but these birds formerly appeared only now and then. Every year we see more Red-headed Woodpeckers; Wallace Coffey spotted 23 in a few hours, 23 Sept., at the Mendota lookout.

HAWK OBSERVATIONS FALL OF 1966

Date	Obs.	h.	Station	Wind	Sky	Temp.	Bdwg.	Total
9/4	Q	3	Mendota FT	3-4 NE	....	....	6	13
10	W	5	Elder Mt.	0-1 NE	2	74-82	33	39
10	O	8	Rogersville FT	0-3 E-vbl	2	60-80	81	84
10	BF	8	Mendota FT	0-3 S & SE	1	65-80	128	132
10	SL	3¼	Nickelsville	3-5 NE	1	....	95	98
11	WP	4	Elder Mt.	0-1 N-SE	3	72-82	21	25
11	F7	6	Rogersville FT	0-2 SE	3	72	26	28
11	OB	8	Mendota FT	0-3 E	4	69-76	15	17
11	SL	2½	Nickelsville	2-3 NE	2	....	97	105
12	R	5	Mendota FT	0-3 SE	2	70-75	38	41
12	S	3½	Nickelsville	3-4 NE	2	....	10	12
14	I	3	Elder Mt.	....	2	72-79	0	0
15	S	4	Mendota FT	NW-SE	3	....	275	289
16	SFC	9	Mendota FT	0-1	0	50-60	1974	1981
16	S	¼	Nickelsville	0	0	50	14	14
17	WIJ	4½	Elder Mt.	3-4 SE	5	62-73	0	0
17	O	7	Rogersville FT	3-1 S-SE	3	62-72	204	219
17	CBD	7	Mendota FT	3 E	4	....	354	356
17	F9	5	Hayters FT	....	5	....	0	0
20	I	3	Elder Mt.	....	4	73-72	0	0
20	X	1	Knoxville	1-2 S	4	....	21	21
21	X	2½	Knoxville	1-2 W	3	....	40	40
22	X	4	Knoxville	1-2 SE	3	65-75	112	122
22	SCH	6¾	Mendota FT	6 SW-W	4	....	11	12
23	WI	4	Elder Mt.	0-1 W	0	72-78	6	17
23	AE	2	Meadow Crk	4 NE	1	55-70	14	17
23	KCS	8	Mendota FT	1 NW-NE	1	....	925	933
24	X	1	Look Rock	3-4 S	0	78	39	49
24	W	6	Elder Mt.	0-1 N-S-W	1	62-75	199	201
24	Y	8½	Camp Ck FT	4 NW	0	50-65	232	250
24	Z	8	Rogersville FT	0-2 WNW	1	60-70	184	197
24	T9G	8	Mendota FT	0	0	....	819	826
25	WU	6	Elder Mt.	0-3 SW-NW	1	58-82	758	767
25	EOV	8	Rogersville FT	0-4 SW	1	62	118	146
25	FHM	7	Mendota FT	1-3 S	3	62-70	313	316
26	R	2	Mendota FT	3-4 S	5	....	0	0
27	X	1¼	Look Rock	3-4 S	4	....	34	41
27	CN	4	Mendota FT	1-3 W	3	65-70	34	38
10/2	F9	6¼	Mendota FT	0-3 SE	1	50-52	25	29
8	F	2½	Mendota FT	1-2 S	1	mild	0	18
19	X	0	Knoxville	....	....	....	0	17
29	O	4	Mendota FT	1-2 SW	0	58-68	0	11
TOTALS		200					7255	7521

On 17 Sept., Patrick and the writer manned Hayters Gap Mt. but saw no hawks. This was our second experience with no hawks at this lookout, where large counts were made early in the history of the T.O.S. project. Maxie Swindell found a new lookout, Look Rock, 6.2 miles off Highway 73 between Maryville and Townsend. There is a fire tower and "an observation tower of sorts." Two brief stops there gave a count of 49 just before noon, as rain was starting, and three days later a count of 41, after 5 p.m. Maxie says this lookout would be ideal for non-hikers. Hayters Knob now has a road to the top but not for public use.

From the Rogersville fire tower, on the Clinch Mt., 24 Sept., Bill Finucane saw three groups of what looked like hawks flying over the Rogersville steam plant, too distant for verification. Several times in the past, hawks have been seen in kettles over Tennessee Eastman power-house stacks.

Fred Behrend found that high winds, clouds and rain resulted in poor hawk migration east of the Tennessee Valley, on the high mountains. In spite of this, we had one of our more interesting seasons. More than 65 people participated. Within a day or two of our expected migration peak, the count at the Mendota fire tower, 22 Sept., was only 12. Flight conditions were so poor that one Broad-winged Hawk flapping in was caught by David Haynes' moving-picture camera. The film shows the hawk landing in a dead tree and then taking off again, a large and clear picture of the first hawk we have seen perch in plain sight, of more than 20,000 that have been counted passing the lookout.

KEY TO REPORTERS

A—Mrs. Royal S. Spees, Greeneville; B—Bill Finucane; C—Charlotte Finucane; D—Mrs. John Mahoney, Kingsport; E—Mrs. Chester B. Darnell, Greeneville; F—Tom Finucane; G—Arthur and Elizabeth Smith, Kingsport; E. Scott and J. Smith, Nickelsville; Max Miller and Bob Faucette, Bristol; H—Mr. and Mrs. David Haynes, Blountville; J—Robert and Alberta Reid, Birmingham; K—Mr. Coffey, Bristol; Dr. Herndon, Elizabethton; Mr. Quillen, Bristol; Mrs. Weber, Kingsport; L—J. Fogl; M—Mr. and Mrs. Miller, Mr. and Mrs. Smith, Bristol; Bill and Pat Finucane; Randy Moore and five friends; Mary and Carl Cunningham, Bernard E. Finucane; O—Tom Odom; P—Jon DeVore; I—Carl Gevers, Chattanooga; Q—Robert, Barbara, Sherrie and Jerrie Quillen; R—Holmes Rolston; S—Eugene Scott; T—E. Scott, T. Finucane, J. Smith; U—Douglas Fleming, Henry Sliger, Wm. Joyner, Theo Rogers, Chattanooga; V—Mr. and Mrs. Richard Nevius, Dr. and Mrs. Spees; W—Gene and Adele West; X—Maxie Swindell; Y—Mr. and Mrs. Darnell; Z—Tom Odom, Tom, III, Bill, Charlotte, and three young Finucanes, and a girl-scout troop (143); 7—Joe Finucane; 9—Pat Finucane.

1434 Watauga Street, Kingsport.

WINTER BIRDS IN SHADY VALLEY 1966-1967

During the period 1 December to 1 March of the winter 1966-67, the writer made almost weekly field trips to Shady Valley, Johnson County, Tennessee to survey the avian population present. There were fourteen counts made and about 42 species found present.

Shady Valley is a unique high mountain valley situated between Iron, Cross and Holston Mountains in Northeastern Tennessee. The general elevation of the valley floor is approximately 2800 feet. In former years, much of the valley was heavily timbered and extensive bogs and swamp areas were to be found. Most of the land has been cleared for agriculture and more recently (1965) the greater portion has been drained.

Significant field work has been carried out in the valley during summer months in the past forty years. Notably: Albert F. Ganier, Bruce P. Tyler (1934); Dr. Alexander Wetmore and the United States National Museum party (1937); Kenneth H. Dubke (1961-1964).

With the exception of one or more Christmas Counts, there has been no serious efforts, known to this writer, to study the winter birds.

The winter was mild in 1966-67 compared with previous years. There was little snow accumulation prior to mid-January. The low temperature was 3° F during late February. Snows were frequent but relatively light.

The Common Crow, Starling and House Sparrow were considered common. Nine species were determined fairly common, thirteen were scarce and only occasionally encountered, seventeen were judged to be rare (occuring only once and sometimes twice).

Fairly Common: Mourning Dove, Downy Woodpecker, Horned Lark, Blue Jay, Carolina Chickadee, Meadowlark, Cardinal, Slate-colored Junco and Song Sparrow.

Scarce: Red-shouldered Hawk, Sparrow Hawk, Killdeer, Common Snipe, Tufted Titmouse, White-breasted Nuthatch, Carolina Wren, Mockingbird, Robin, Loggerhead Shrike, Red-winged Blackbird, Rusty Blackbird and American Goldfinch.

Rare: Cooper's Hawk, Bobwhite, Ring-necked Pheasant, American Woodcock, Belted Kingfisher, Pileated Woodpecker, Yellow-bellied Sapsucker, Winter Wren, Golden-crowned Kinglet, Rufous-sided Towhee, Field Sparrow, Fox Sparrow, Swamp Sparrow, White-throated Sparrow, Screech Owl, Great Horned Owl and Turkey Vulture.

On 19 December, 1962, Fred W. Behrend made a Christmas Count in Shady Valley (THE MIGRANT 33:71). He recorded twenty-five species of which the following were not found there this winter: Yellow-shafted Flicker, Hairy Woodpecker, Brown Creeper and Brown-headed Cowbird.

The occurence of the Yellow-bellied Sapsucker, Winter Wren, Rufous-sided Towhee, Fox Sparrow and Turkey Vulture closely agree with population trends observed at the lower elevations west of the mountains during the same period. The scarcity of Tufted Titmouse, White-breasted Nuthatch, Carolina Wren, Mockingbird, Loggerhead Shrike, American Goldfinch and the rarity of the Bobwhite, Belted Kingfisher, Pileated Woodpecker, Golden-crowned Kinglet, Field Sparrow and White-throated Sparrow were not in agreement.

Most of the remaining species occurred as one might expect with the possibility that the Sparrow Hawk, Mockingbird and Loggerhead Shrike are never found to be common in the valley and particularly so in summer.

Killdeer were found in unusual numbers with a high count of eight on 17 December. There were five Mockingbirds found on 17 December. Three species were present in fair numbers during the first half of December only to move out by mid-month. The Common Snipe demonstrated this movement. They were present until 17 December and none was found again until the last four were seen on 14 January. The Red-winged Blackbird count on 1 December was 76 and the number declined quickly by 10 December. There were four to ten Rusty Blackbirds until 17 December and none later. The Mourning Doves increased steadily after 27 December to a peak of 87 on 14 January.

John Shumate of Shady Valley and the writer made the bulk of the counts.

OTHER OBSERVERS: Bill Bridgforth, Carolyn Coffey, Tim Hawk, Jim Shepherd, Charles Smith.

Additional notations may be found in "The Season" under the heading "Bristol."

WALLACE COFFEY, 508 Spruce Street, Bristol 37620.

T.O.S. MEMBERSHIP CARDS

Annual TOS membership cards are available for 1967 from your chapter secretary, if you have not already received one or for members at large a card may be obtained by writing our state secretary, Mrs. Thomas C. Swindell, 3021 Sullivan Road, Knoxville, Tenn. 37921.

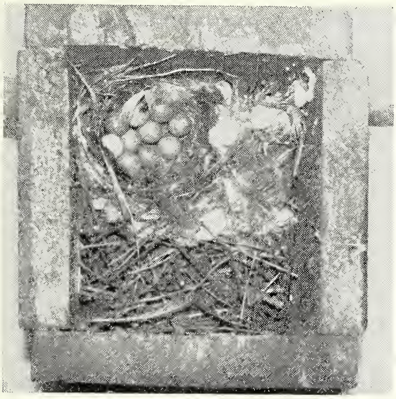
THE HOUSE WREN IN 1966 AT NASHVILLE

BY AMELIA R. LASKEY

For 1966, I have data on 4 nests of the House Wren (*Troglodytes aedon*) in my home area in the south-west section of Nashville. This number equals that of 1965, but this year the nests were concentrated within a smaller area, 1.2 by .4 miles.

From 24 to 28 April, singing House Wrens appeared at three homes: 25 April one arrived at my home, remaining three days; 24 April J. P. Jones reported two carrying nest material at his home, a half mile north-west, but they left without establishing a nest; on 28 April one appeared at home of Dr. and Mrs. J. H. Hite.

In another area about 8 miles north-east of my home, Mrs. C. D. Anderson, McGavock Pike, reported a singing House Wren near her home in early May where they had nested in 1965 in a cavity high in a tree. This year the singer moved farther away and disappeared, presumably without acquiring a mate.



Nest No. 3

Nest No. 1: On 18 May Mrs. J. S. Lasley, Woodmont Blvd. near the Jones home, telephoned about a pair of birds nesting at her home which I identified as House Wrens. They were feeding young in a nest box hung high in a tree near the house. She said the same species had nested there in 1965 (not listed in my 1965 report). Nest No. 2: On 12 June a brood fledged from a barrel-type nest hung in a tree at the Hite home where House Wrens have nested for several years. Nest No. 3: At the same time at the Hite home a pair was busy at a bluebird-type of nest box about three hundred feet away among fruit trees and grape vines. Nest No. 4: On 17 June, I investigated a nest at the home of E. M. Haywood, Golf Club Lane, where young were being fed in a gourd hung under eaves of the garden house. The male sang nearby and scolded as I approached.

At the Hite home (Nest No. 3) the orchard pair started egg-laying during the last week of June. After the first 6 eggs were seen, no further check was made at the nest until late August when the boxes were taken down for cleaning and 10 eggs were found in the nest. Both boxes with contents intact were given to me for study. H. E. Parmer photographed the nest, showing that some of the eggs were lighter in color because less pigmented. All were about the same size. Candling indicated no development of embryos as the contents were dried in one end of the shell. W. E. C. Todd states that House Wren eggs vary somewhat in coloration (1940 *Birds of Western Penn.* p. 413). Forbush (1929 *Birds of Mass.* v. 3, p. 341) states 5 to 12 eggs in a set, as does Bent (1948 *Life Histories of North American Nuthatches, Wrens Thrashers, and Their Allies,* Bull. 195 p. 121) but the latter gives 6 to 8 as the usual number.

The 10 egg set was in a box on a post about 5 ft. from the ground, 191 mm deep and 109 by 127 mm wide. It was completely filled with nest material with eggs in a depression 45 mm deep and 55 mm wide at the top. Underneath was a shallow nest of vegetal fibres, probably left from a previous occupancy of a different species. The nest was composed of 965 twigs (longest 140 mm), 22 grape stem clusters and tendrils, 278 feathers (the bird feathers mainly Bobwhite), 29 cocoons of the tent caterpillar, a nine-cell nest like a miniature paper wasp nest, plus 17 grams of soft material including snake scales, rootlets, plant fibres and bits of cellophane.

The keg-type nest box, 229 mm in diameter, contained a nearly-backless nest cup, about 70 mm. deep and 90 mm. across (widened doubtless by the growing broods). This nest contained 915 twigs, 85 feathers (bird feathers mainly of Starling), 13.6 grams of soft material, some spider silk and horse hair. Except for a narrow slit, the entrance was closed by twigs.

This season, the population of Bewick's Wrens (*Thryomanes bewickii*) appeared to be lower than in 1965. I had none at my home. There were very few sight records and no nests reported in the area from my home into Percy Warner Park.

1521 Graybar Lane, Nashville 37215.

CORRECTION

The T. V. tower casualty report for 1966 lists an incorrect date for late departures (my typographical error) in THE MIGRANT, Dec. 1966, 37, page 62, line 12. It should read Oct. 24 (not Oct. 20) for White-eyed Vireo, Red-eyed Vireo (4), Black-throated Blue Warbler Ad. male, Yellowthroat, Wilson's Warbler, Rose-breasted Grosbeak, Sharp-tailed Sparrow.

AMELIA R. LASKEY, 1521 Graybar Lane, Nashville 37215.

NASHVILLE NEST RECORD CARDS SENT TO CORNELL

Pursuant to the request from the Laboratory of Ornithology, Cornell University, members of the Nashville Chapter for the past two years have recorded on cards provided by Cornell the observations they have made of nesting birds. The following cards of birds nesting in the general Nashville area have been sent to Cornell:

Species	1965	1966	*Species*	1965	1966
Green Heron	3	....	Robin	33	6
Great Blue Heron	....	1	Wood Thrush	....	1
Blk-cr. Night Heron	42	...	East. Bluebird	8	43
Sparrow Hawk	....	1	Bl.-gr. Gnatcatcher	5	5
Killdeer	....	1	Loggerhead Shrike	...	4
Mourning Dove	10	5	Starling	1	3
Yel.-bill Cuckoo	....	1	White-eyed Vireo	1	1
Screech Owl	1	....	Yellow-thr. Vireo	....	1
R.-thr. Hummingbird	....	1	Red-eyed Vireo	....	1
Yel.-sh. Flicker	1	2	Prothonotary Warbler	1	2
Red-bel. Woodpecker	1	..	Parula Warbler	...	1
Red-headed Woodpecker	....	3	Louis. Waterthrush	2	3
Downy Woodpecker	....	5	Kentucky Warbler	1	....
Eastern Kingbird	2	....	Yellowthroat	1	....
Gr. Crest. Flycatcher	1	....	Hooded Warbler	....	1
Eastern Phoebe	8	6	House Sparrow	2	3
Acadian Flycatcher	....	5	East. Meadowlark	....	3
East. Wood Pewee	....	1	Red-winged Blackbird	4	5
Barn Swallow	1	....	Orchard Oriole	1	1
Purple Martin	(5 Nests) 1	(29 Nests) 5	Baltimore Oriole	....	1
Blue Jay	6	3	Common Grackle	14	2
Carolina Chickadee	3	8	Brown-headed Cowbird	...	2
Tufted Titmouse	3	4	Scarlet Tanager	1	....
White-br. Nuthatch	....	1	Summer Tanager	2	....
House Wren	2	1	Cardinal	18	9
Bewick's Wren	1	1	Indigo Bunting	1	1
Carolina Wren	2	3	American Goldfinch	....	1
Mockingbird	5	6	Rufous-sided Towhee	7	2
Catbird	1	2	Chipping Sparrow	2	2
Brown Thrasher	6	2	Field Sparrow	2	1

SUMMARY

	*Nests**	*Cards*	*Species*	*Participants*
1965	211	207	40	22
1966	197	173	49	20

*NOTE—Only one card was used per Purple Martin colony.

Special buff colored cards similar to the Cornell cards were printed, and the information on the original cards were copied on these. The original cards have been sent to Cornell and the copies retained in Nashville as a permanent file for future study and analysis. In addition to the above a number of cards covering nests seen by members while on trips outside of Tennessee were also sent to Cornell.

Those participating in this program were: John Ellis '65, Steve Greenfield '65, Mrs. William Bell '65-'66, Miss Mary Wood '65-'66, Mrs. John Wood '65, Mrs. Amelia R. Laskey '65-'66, Miss Annella Creech '65-'66, Henry E. Parmer '65-'66, Mrs. Milbrey R. Dugger '65-'66, Miss Ruth Castles '65-'66, J. Don Geary '65, R. F. Demonbreum '65, Laurence Trabue '65-'66, Mrs. Robert Greenleaf '65, Alvin F. Vincent '65-'66, Miss Jenny Riggs '65, Mrs. F. K. Murphy '65-'66, Mrs. Erline C. Elmore '65, Mrs. Marvin Jenning '65, Jimmy Parrish '65, Mike Bierly '65-'66, Katherine A. Goodpasture '65-'66, Harry Monk '66, Rick Vincent '66, Larry Trabue, Jr. '66, Mrs. Henrietta McCary '66, John S. Herbert '66, Louis Farrell, Jr. '66, E. M. Haywood '66, Louise Jackson '66.

LAURENCE TRABUE, 3819 Harding Place, Nashville.

——— MATERIAL FOR PUBLICATION ———

In order to organize material for publication in THE MIGRANT the Editorial Staff attempts to meet a deadline for each issue as follows:

MARCH 15th
JUNE 15th
SEPTEMBER 15th
DECEMBER 15th

Your material is welcome at anytime. However, articles received after the above dates will appear in a subsequent issue.

ROUND TABLE NOTES

LONGEVITY OF A CAPTIVE, ABERRANT-PLUMAGED GREAT HORNED OWL. — A captive Great Horned Owl (*Bubo virginiana*) lived at least twenty-two years. She had been trapped on a farm in Springfield, Tennessee several months before she was obtained by C. F. Pickering and brought to me on 24 December, 1944. She was in excellent condition but very hungry, grabbing the food immediately. Later she always waited until night to eat (THE MIGRANT 15:75 1944). She died 13 February, 1966.

Her plumage was normal in pattern, but it lacked the dark colors of this species. The usual tawny, dark and black were replaced by dull white and a color described as "smoke gray" in the Villabolos system (1962 *Handbook of North American Birds,* Vol. 1, Ed. R. S. Palmer). Her beak and toes were cream color; her eyes were yellow. She molted in a normal manner, starting usually in April, completing by September. Color and pattern did not vary in her lifetime. Her plumage remained in excellent condition.

Food consisted mainly of fresh bird casualties, collected at ceilometer, television towers and highways. Fresh chicken backs and necks were readily accepted as substitutes. Occasionally there was evidence that she has procured a half-grown opossum that had foraged in her large cage at night. Half of the mammal would be cached in a corner of the cage and eaten the following night. In an experiment, a full-grown opossum was released in the cage. She immediately jumped on its back, but flew to her perch when it snarled, paying no further attention to it.

She hooted at night, starting before drak on September evenings and at a later hour as the seasons advanced. Occasionally she gave a series of soft hoots when I disturbed her in cleaning her cage. Her night calls were considerably different from the normal resonant type. They were higher in pitch, shorter, and composed of several syllables. I often heard as many as seven short "hoots."

In five seasons, a visiting Great Horned Owl called at night near her cage although none lived within several miles of our home. It was easy to distinguish her answering calls. These visits occurred as follows: 1949—January and February; 1949—September and October; 1959—January through April; 1962—October through December; 1963—March.

She died after three days of fasting as she rested on a bed of straw instead of the perch which she usually occupied. The exact cause of death was not determined.

The specimen was preserved as a study skin in the collection of the Children's Museum in Nashville. Preparator of the museum, Alan R. Munro, gave me the following data: female, with ova in various stages of development and one soft-shell egg; total length, 21.5 inches. Other measurements in inches include wing (chord) 15; spread 42.5; tail 7.63.

I had never found any evidence of egg-laying.

Twice in the latter years, she was released by trespassers, but remained near her home (once all night). She was easily captured although she was seldom handled. She often flew to the door as I left her food; she was tolerant of the people that came to see or to photograph her. In late 1965, a vandal poked a long stick through the slatted side of the locked cage, causing some injury that may have contributed to her death. She lost an eye from this encounter.

AMELIA R. LASKEY, 1521 Graybar Lane, Nashville 37215.

UNUSUAL WOODCOCK BEHAVIOR — On 5 March, 1967, at my home in Germantown, Tennessee (a suburb of Memphis), I was watching six towhees in a circle of about 3 feet diameter when a movement in the leaves caught my eye. An American Woodcock (*Philohela minor*) was feeding within 15 feet of my point of observation. This is a wooded area, predominantly oak, with underbrush and a good covering of dead leaves, as the area is left undisturbed.

My husband and I observed the bird from 4:00 to 4:45 p.m. during which period it continued to feed in an area covering no more than 20 feet in diameter. The most striking and puzzling action took place between probings for food. The woodcock would stand still with its head completely motionless while at the same time its body would rock back and forth and up and down simultaneously. The odd tilting motion made the woodcock appear as if it were swaying on springs and the movement was repeated between each probing during the entire 45 minutes of observation.

No reference to this action was found in Arthur Cleveland Bent's *Life Histories of North American Shore Birds,* T. Gilbert Pearson's *Birds of America,* field guides or similar literature.

HELEN B. DINKELSPIEL, 6519 Massey Lane, Germantown 38038.

SPOTTED SANDPIPER IN FEBRUARY—On 18 February, 1967, about one mile south of Pickwick Dam, in Hardin County, I saw one Spotted Sandpiper (*Actitis macularia*). This bird is entirely unexpected here in winter, and is a late spring migrant. It did not appear at all sick or exhausted.

The two-syllable note, the characteristic flight, the tilting walk, and the white shoulder mark of the winter plumage were all plainly evident during the half-hour that the bird was within easy watching distance. Since I often see Spotted Sandpipers here in the spring and fall I feel confident in the identification.

During the preceeding week there were several days with strong south winds, but as far as I know no severe storms. On the afternoon I saw the bird the weather was wet and not much above freezing.

DAVID E. PATTERSON, Harbert Hills Academy, Olive Hill 38475.

SURF SCOTERS ON CHICKAMAUGA LAKE — On 30 October, 1966, the Knoxville Chapter of T.O.S. made its annual trip to Hiwassee Island on Chickamauga Lake in Rhea County, Tennessee. Present were more than eighty persons, including a few members of other East Tennessee chapters, all of whom were expecting to find at least one rare bird during the day, as is usually the case on this trip.

The group was not disappointed because a group of four ducks was spotted very near the boat landing on the island. I tentatively identified them as Ruddy Ducks (*Oxyura jamaicensis*) and called them to the attention of the people farther back on the barge. As we moved to within fifty feet of the birds they flew and revealed the typical "broken nosed" profile of the scoter family. Our group was divided as to whether they were Surf Scoters (*Melamitta perspicillata*) or Common Scoters (*Oidemia nigra*). The absence of the white wing patches eliminated the possibility of White-winged Scoters (*Melanitta deglandi*).

Upon landing on the island a few of our group decided to walk up the island in an attempt to find the spot to which the scoters flew. After a mile walk, we spotted the birds on the far side of the lake but even 20 power scopes and binoculars did not settle our debate. In desperation I hailed a passing cabin cruiser and the kind owner took Fred Alsop, Maurice Grigsby, Terry Satterfield and me to within fifteen feet of the birds and they were definitely Surf Scoters. All were females or immatures since the two light face patches were clearly visible and again the absence of the white wing patches proved conclusively that these were not White-winged Scoters.

A check of Knoxville and Chattanooga Chapter records indicated that only one other sighting of Surf Scoters had been reported in the areas of these two chapters. Six of these sea ducks were seen by many members of the Knoxville Chapter on 15 May, 1960, on Alcoa Lake in Blount County, Tennessee.

JAMES M. CAMPBELL, 15 Hedgewood Drive, Knoxville.

CORRECTIONS

The following corrections should be made to the table containing THE 1966 CHRISTMAS SEASON BIRD COUNTS. Under the column headed *Nashville* page 65, omitted from the list were: Hairy Woodpecker, 14; Downy Woodpecker, 88. Under the column headed *Old Hickory* pages 64 and 65 the following changes should be made: Marsh Hawk "25" should read "—"; Sparrow Hawk "—" should read "25;" Herring Gull "—" should read "3;" Winter Wren "2" should read "—" and Bewick's Wren "—" should read "2."

We apologize to Mr. Henry Parmer who submitted the records and called the errors to our attention. Ed.

THE SEASON

Charles R. Smith, *Editor*

The winter season (December, January, February) across the state was generally drier and a bit colder than usual. Precipitation in the form of heavy snowfalls was limited during the period in contrast to the same period last year. Near the end of February, temperatures in some regions of the state became milder than usual, giving us a hint of spring in the air.

Seasonal coverage across the state was better than usual, with eight season correspondents reporting. Several good records were noted. Among the waterfowl, Oldsquaws were reported from Nashville, Chattanooga, and Bristol along with a White-winged Scoter from Chattanooga (a first for that area, according to correspondents). Birds of prey were well represented across the state, with Bald Eagles reported from Chattanooga and Bristol. A Virginia Rail and Spotted Sandpiper were recorded in the Savannah area. Nashville also recorded the Dunlin during the early part of the period. Some of the more unusual winter visitors (or very early spring migrants!) included a Tree Swallow and a Rose-breasted Grosbeak from the Nashville area and Brown Thrashers from Cookeville, Greenville, and Bristol. *Bona fide* records of wintering Brown Thrashers seem to be becoming more numerous. Northern visitors were either very rare or nonexistent. No areas reported Evening Grosbeaks, crossbills, or siskins (exclusive of the Christmas Counts). Only four areas reported scattered records of the Purple Finch. Occurrences of the Myrtle Warbler were also few in number.

SAVANNAH—*Loons-Sparrows*: Common Loon: last 14 Jan. (5) P. Common Goldeneye: 14 Jan. (30) P. Bufflehead: 21 Dec. (36) P. Virginia Rail: 20 Dec. (2), 21 Dec. (1) HC. Spotted Sandpiper: 18 Feb. (1) P, our only winter record. Pine Warbler: 13 Feb. (1). Fox Sparrow: unusually abundant all winter; 25 Feb. (41) at three locations.

Locations: HC—Horse Creek and U.S. 64, P—Pickwick Dam and Lake.

DAVID E. PATTERSON, Harbert Hills Academy, Olive Hill 38475.

NASHVILLE—*Grebes-Gulls*: Horned Grebe: (approx. 20) wintered OHL. Pied-billed Grebe: (2) RL (MCW) and (1) CP wintered, plus scattered records. Great Blue Heron: 20 Jan. (4) OHL, 31 Jan. (1) RL, both (MCW). Mallard: very scarce BL and RL. Black Duck: (approx. 20) wintered BL (HEP). Shoveler: (1-3) all winter BL (HEP). Redhead: 3 Jan. (3), 12 Jan. (4), 28 Feb. (7), all RL (MCW). Ring-necked Duck: very scarce all winter. Canvasback: 13 Jan. (37), 9 Feb. (36), 28 Feb. (40) BL (MCW). Lesser Scaup: (300 plus) BL during the period (HEP). Common Goldeneye: 16 Jan. (23) to 28 Feb. (33) RL (MCW), (2-20) BL for the period (HEP). Oldsquaw: (1) from 21 Jan. to 28 Feb. BL (HEP). Ruddy Duck: a few scattered records of (1-4) BL and RL. American Coot: (200) wintered RL (MCW); rarely over (100) OHL (HEP). American Woodcock: 1 Feb. (1) (REL), our earliest return; 19 Feb. (2) BS (KAG, HEP, HCM). Dunlin: (2) remained until 12 Dec. (MIGRANT 37:81). Herring Gull: below normal. Ring-billed Gull: 90% below normal OHL; almost absent BL except for (110) for a few days around 18 Dec. Bonaparte's Gull: far below normal all winter OHL.

Swallows-Sparrows: Tree Swallow: 18 Feb. (2) Woods Reservoir (far out of the Nashville area) (MCW, HMcC). Red-breasted Nuthatch: a few all winter. Brown Thrasher: (1) wintered (FM). Robin: a very few present. Hermit Thrush: 26 Feb. (1) BS (KAG). Starling: down perhaps 95%, with the only roosts being a few scattered areas downtown. Myrtle Warbler: very scarce. Rose-breasted Grosbeak: (1) at home of (JC) last seen 6 Jan. (MIGRANT 37:67). Purple Finch: present, but in small numbers. Dickcissel: 28 Jan. (1) (HMcC).

Locations: BL—Bush Lake, BS—Basin Springs, CP—Centennial Park, OHL—Old Hickory Lake, RL—Radnor Lake.

Observers: JC—Mrs. Jack Clark, KAG—Katherine A. Goodpasture, REL—Mrs. R. E. Lynn, HMcC—Henrietta McCrary, HCM—Harry C. Monk, FM—Fanny Murphy, HEP—Henry E. Parmer, MCW—Mary C. Wood.

HENRY E. PARMER, 3800 Richland Ave., Nashville 37205.

COOKEVILLE—*Herons-Kinglets*: Great Blue Heron: 14 Dec. (2) WGA (RH). Gadwall: 4 Feb. (3), 10 Feb. (2) WGA (RH). Cooper's Hawk: throughout Dec., Jan., Feb. (1). Red-tailed Hawk: throughout Dec., Jan., Feb. (1-2). Red-shouldered Hawk: 11 Feb. (1), 12 Feb. (2). Marsh Hawk: 2, 29 Jan. (1), 9, 19 Feb. (1). American Woodcock: 12 Feb. (1), 28 Feb. (2) RA (RH). Brown Thrasher: 9 Feb. (1) HP (AJ), 11 Feb. (1) RA (RH). Ruby-crowned Kinglet: 21, 22 Feb. (1) RA (RH).

Locations: HP—Home Place, RA—Rickman Area, WGA—Willow Grove Area.

Observers: BC—Beulah Clark, RH—Roy Hinds, AJ—Amy Johnson, EK—Elizabeth Killeffer, MR—Miser Richmond.

MARIE WHITE, 1218 Byrne Avenue, Cookeville 38501.

CHATTANOOGA—*Loons-Ducks*: Common Loon: regular in small numbers, max. 29 Jan. (6) BTWP. Horned Grebe: regular in varying numbers, max. 29 Jan. (31) HB. Pied-billed Grebe: regular in varying numbers, max. 6 Feb. (27) HB. Great Blue Heron: regular in varying numbers, max. 29 Jan. (33) HI. Canada Goose: wintering population (approx. 2,500) at HI, rare elsewhere. Blue Goose: 23 Jan. (5) HI, 29 Jan. (2) WR. Snow Goose: 29 Jan. (2) WR. Mallard: regular, but way below usual numbers for the local area, max. 23 Jan. (375) HI and 29 Jan. (625) WR. Black Duck: regular, max. 22 Jan. (226) BTWP. Gadwall: wintered in larger than usual numbers, max. 25 Jan. (235) BTWP & HB. Pintail: first 23 Jan. (28) BTWP & HI, in small numbers to (12) since. Green-winged Teal: regular, usually in small numbers, max. 23 Jan. (57) BTWP & HI. Blue-winged Teal: first 27 Feb. (3) SB (KHD & RE). American Widgeon: regular, but below usual numbers, max. 6 Feb. (71) HB. Shoveler: 23 Jan. (8) BTWP & HI, 27 and 28 Feb. (2) SB. Wood Duck: scattered, in small numbers, usually never more than two. Redhead: 21 Jan. (5), 29 Jan. (11), 23 Feb. (7), 27 Feb. (48), and 28 Feb. (148) all at BTWP. Ring-necked Duck: uncommon, well below usual numbers, max. 28 Feb. (25) HCP. Canvasback: 21 Jan. (8) BTWP, 29 Jan. (1) WR. Scaup (Greater and Lesser): Round Table Note to follow. Common Goldeneye: regular in varying numbers, max. 21 Jan. (53) BTWP. Bufflehead: regular in small numbers, max. 4 Dec. (12) HCP. Oldsquaw: 28 Feb. (1) WB (BB, JD, KHD, RE, AW). White-winged Scoter: first local record 13 Feb.

(1) WB (KHD), 28 Feb. (2) WB (BB, JD, KHD, RE, AW). Ruddy Duck: 1 Jan. (5) BCD, 28 Feb. (4) BTWP. Hooded Merganser: regular, usually in numbers of 1 to 40, max. 23 Feb. (74) WT. Common Merganser: 25 Jan. (3), 6 Feb. (1) both at HB. Red-breasted Merganser: first 2 Jan. (1) BTWP, five records since, max. 22 Jan. (5) BTWP.

Vultures-Owls: Turkey Vulture: one to three at C; rare elsewhere. Sharp-shinned Hawk: 8 Jan. (1) WR (JD), 23 Jan. (1) BTWP (JD, KHD), 28 Jan. (1) HCP (JD). Cooper's Hawk: 28 Jan. (1) HCP. Red-tailed Hawk: regular in small numbers. Red-shouldered Hawk: 1 to 2 sporadically. Bald Eagle: 15 Jan. (2) WBL (JD), 23 Jan. (1) HI (JD, KHD). Marsh Hawk: below usual numbers, never more than two. American Coot: wintering population at HB estimated at 6950 on 6 Feb. (KHD, RE). Killdeer: wintering population max. 19 Dec. (79) SB (KHD, RE), decreasing in Jan. and Feb. American Woodcock: 25 Jan. (3) CB (KHD, RE). Common Snipe: regular, max. 27 Feb. (97) SB. Least Sandpiper: wintering population at SB, max. 28 Feb. (13). Herring Gull: regular, counts up to 12. Ring-billed Gull: regular in varying numbers, max. 28 Feb. (390). Bonaparte's Gull: 22 Jan. (5) BTWP, 23 Jan. (13) BTWP, 28 Jan. (1) WT, 29 Jan. (50+) WT, 4 Feb. (5) WT. Barn Owl: 24 Jan. (2) MB, 9 Feb. (1) AM, 28 Feb. (1) Hwy 153 at Shallowford Road (all these were found dead on the road or in field).

Phoebe-Sparrows: Eastern Phoebe: 23 Jan. (2) HI & C. Red-breasted Nuthatch: 11 Feb. (4) BTWP (JD, AW); regular at C, max. 15 Jan. (7) (BB), no others reported. Winter Wren: reported only at C (BB). Water Pipit: regular at SB and appears more common than usual with numbers regular up to 35, max. 12 Feb. (50) CB (KHD, HEP). Cedar Waxwing: uncommon, below usual numbers, no more than 50 in one flock. Myrtle Warbler: below usual numbers, max. 27 & 28 Feb. (3). Pine Warbler: 20 Dec. (1) J (KHD), then none until 23 Jan. (1) BTWP, then regular with one to four singing individuals on warm days thru end of period. Palm Warbler: 28 Feb. (1) HCP (JD). Purple Finch: far below last years numbers, small flocks to eight. Savannah Sparrow: few reports at C (BB), none elsewhere except on Christmas Census 1 Jan. Vesper Sparrow: 12 Dec. (11), 27 Dec. (5), 17 Jan. (11) all at Pan-O-Ram Farm (KHD, RE, TLR), 23 Jan. (12) SB. Chipping Sparrow: 50 to 100 at C (BB), none reported elsewhere except one on Christmas Census. White-crowned Sparrow: 23 Jan. (1) HI. Fox Sparrow: scattered individuals reported from various areas.

Locations: AM—Amnicola Marsh, BTWP—Booker T. Washington State Park, C—Collegedale, BCD—Below Chickamauga Dam, CB—Chickamauga Battlefield, HB—Hales Bar Lake, HCP—Hamilton County Park, HI—Hiwassee Island, J—Jasper, MB—Mocassin Bend, SB—Savannah Bay, WB—Waconda Bay, WR—Woods Reservoir; WT—Wolftever area of Chickamauga Lake, WBL—Watts Bar Lake.

Observers: BB—Benton Basham, JD—Jon DeVore, KHD—Kenneth H. Dubke, RE—Roy Evenson, HEP—Henry E. Parmer, TLR—Theo L. Rogers, AW—Adele West.

JON E. DEVORE, 4922 Sarasota Drive, Hixson 37343.

KNOXVILLE—*Owls-Finches*: Barn Owl: 12 Feb. (1) by Susan Hoyle. Red-headed Woodpecker: all Jan. and Feb. (1). Purple Finch: few recorded all winter as compared with usual numbers. Pine Siskin: none.

JAMES T. TANNER, Route 10, Knoxville 37920.

GREENEVILLE—*Heron-Snipe*: Great Blue Heron: 11 Feb. (1) A. Canada Goose: 1 Dec. to 28 Feb. (2) GP. Snow Goose: 1 Dec. to 28 Feb. (1) SP. Egyptian Goose: 1 Dec. to 28 Feb. (2) SP. Mallard: 1 Dec. (500); max. 16 Dec. (1500) RFB. Black Duck: 16 Dec. (500) RFB. Red-tailed Hawk: 30 Dec. (1), 11 Feb. (1), 18 Feb. (1). Sparrow Hawk: 20 Jan. (1), 22 Feb. (2) A. Common Snipe: 22 Jan. (2), 18 Feb. (6) RFB.

Woodpeckers-Shrike: Yellow-shafted Flicker: 22 Jan. (1). Pileated Woodpicker: 22 Jan. (1). Red-bellied Woodpeckers: regular since 1 Dec. Horned Lark: regular since 1 Dec. WGS. White-breasted Nuthatch: 30 Dec. (1), 21 Jan. (3) A. Winter Wren: 30 Dec. (1) A. Bewick's Wren: regular since 1 Dec. Brown Thrasher: 3 Jan. (1) TC. Loggerhead Shrike: regular since 1 Dec. A.

Warbler-Sparrows: Myrtle Warbler: 21 Jan. (1) A. Common Grackle: regular since 1 Dec. A. Brown-headed Cowbird: 25 Feb. (30) A. White-crowned Sparrow: regular since 1 Dec. A. Fox Sparrow: 26 Dec. (8) A.

Locations: A—Albany, GP—Guinn's Pond, RFB—Roaring Fork Bottoms, SP—Simpson's Pond, TC—Tusculum College, WGS—West Greene High School.

Observers: Richard or Ruth Nevius.

RICHARD NEVIUS, Route 3, Greeneville 37743.

BRISTOL—*Loons-Mergansers*: Common Loon: 7 Dec. (2) BL, 25 Dec. (1) SHL, 31 Dec. (5) SHL. Horned Grebe: 10 Dec. (3), 25 Dec. (1), 31 Dec. (5) SHL. Pied-billed Grebe: 10 Dec. (2), 31 Dec. (5) SHL. Great Blue Heron: regularly, max. 31 Dec. (9) SHL. Canada Goose: 31 Dec. (33) SHL (WC, JS, CS, HW). Mallard: at SHL 10 Dec. to 17 Jan., max. 31 Dec. (537) SHL (WC, CS). Black Duck: 7 Dec. (BL) to max. 31 Dec. (1031) SHL (WC, CS). Gadwall: 7 Dec. (18) PHL. American Widgeon: 7 Dec. (28) PHL, 25 Dec. (3) SHL. Ring-necked Duck: 19 Feb. (1) SHL. Common Goldeneye: 31 Dec. (8) SHL. Bufflehead: scarce, 31 Dec. (1) SHL. Oldsquaw: 23 Dec. (8) SHL (HH) an unusually large number. Three shot by hunter identified (WC, DM) same date. Hooded Merganser: 10 Dec. (1) SHL, 31 Dec. (4) SHR. Red-breasted Merganser: 7 Dec. (8) BL, 10 Dec. (1) SHL.

Vultures-Hawks:Turkey Vulture: regularly, max. 22 Jan. (15). Black Vulture: regularly, max. 22 Jan. (30) SHL (WC). Cooper's Hawk: five records Jan. and Feb., 27 Dec. (1) SV (WC, JS). Red-tailed Hawk: 16 Jan. (1) SHL, 18 Jan. (1) SHL. Red-shouldered Hawk: 17 Dec. (2) SV, 2 Jan. (1) SV, 4 Feb. (1) SV. Bald Eagle: 31 Dec. (1 adult) SHL (WC, JS, CS). Sparrow Hawk: numerous.

Coot-Owls: American Coot: 7 Dec. (3) BL-PHL, 31 Dec. (1) SHL. Killdeer: 1 Dec. to 4 Feb. SV, max. 4 Feb. (13) SV, 7 Dec. (1) SHL. American Woodcock: 22 Dec. (1) SV (JS), 15, 16, 19 Feb. (1) BT (EV). Common Snipe: 1 Dec. to 14 Jan. SV, max. 17 Dec. (6) SV, 4 Feb. (2) SHL. Herring Gull: 10 Dec. (3) SHL, 31 Dec. (2) SHL. Ring-billed Gull: 7 Dec. (2) BL, 10 Dec. (2) SHL, 31 Dec. (11) SHL. Great Horned Owl: nest with 2 birds present 18 Jan. SHL, Va. (WC), 21 Jan. one egg in nest (WC, HH, CS), 6 Feb. (two eggs) (HH), all records for same nest.

Woodpeckers-Shrikes: Yellow-shafted Flicker: 7 Dec. (1), 31 Dec. (3). Red-bellied Woodpecker: regular and numerous. Red-headed Woodpecker: 11 Jan. (1) BT (WC), 12 Jan. (1) BT (WC). Yellow-bellied Sapsucker: 6 Dec. (1), 7 Dec. (1), 17 Dec. (1) SV. Eastern Phoebe: 31 Dec. (2). Horned Lark: 1 Dec. (7) SV, 17 Dec. (2) SV, 27 Dec. (2) SV, 31 Dec. (1) BT. Blue Jay: numerous reports. White-breasted Nuthatch: numerous reports. Red-breasted Nuthatch: scarce, 10 Dec. (2) SHL, 31 Dec. (1) SHL. Brown Creeper: scarce, 19 Feb. (2), 10 Dec. (2), 31 Dec. (1). Winter Wren: several SV, 3 Feb. (1) BCC. Brown Thrasher: 15 Dec. (1) BT, 12 Feb. (1) BT. Robin: numerous records in Dec. and Jan. until mid-February migration, max. 21 Jan. (120) SHL. Eastern Bluebierd: no records until 24 Jan. (1) and then regularly but few, max. 4 Feb. (5). Golden-crowned Kinglet: 31 Dec. (21), 23 Jan. (3), 4 Feb. (1) SV, 3 Feb. (1). Ruby-crowned Kinglet: scarce, 10 Dec. (1) SHL. Loggerhead Shrike: numerous and well distributed.

Blackbirds-Finches: Red-winged Blackbird: several records SV, max. 1 Dec. (76) SV, all records for Dec. Rusty Blackbird: 1 Dec. (4) SV, 4 Dec. (10) SV, 17 Dec. (4) SV. Common Grackle: 23 Jan. (2) BT. Rufous-sided Towhee: several Dec. to Feb., 17 Jan. (4) SV. White-crowned Sparrow: 7 Dec. (2), 31 Feb. (6). White-throated Sparrow: a few regularly. Fox Sparrow: 14 Jan. (2) SV. Swamp Sparrow: 4 Dec. (1) SV, 17 Dec. (2) SV.

Locations: BCC—Bristol Country Club, Tenn., BL—Boone Lake, BT—Bristol, Tenn., PHL—Patrick Henry Lake, SHL—South Holston Lake, Tenn., SHL, Va.——South Holston Lake, Virginia. SHR—South Holston River, Tenn., SV—Shady Valley, Johnson County, Tenn.

Observers: JA—Judith Abbott, FB—Fletcher Bingham, BB—Bill Bridgforth, CC—Carolyn Coffey, WC—Wallace Coffey, HH—Harvey Hawk, LH—Lee R. Herndon, BQ—Bob Quillen, DM—David McPeak, JBS—Jim Shepherd, JS—John Shumate, CS—Charles Smith, EV—Enno vanGelder, RV—Roger vanGelder, HW—Hank Woodward.

WALLACE COFFEY, 508 Spruce Street, Bristol 37620.

ELIZABETHTON—*Loons-Snipe*: Common Loon: 7 Dec. (2). Horned Grebe: 8 Jan. (2), 26 Feb. (2). Pied-billed Grebe: max. 29 Jan. (14). Great Blue Heron: max. 3 Dec. (20) BL, PHL. Canada Goose: 3 Dec. (12) BL (CRS). Mallard: throughout the period in small numbers. Black Duck: max. 15 Feb. (147) WaL. Gadwall: present throughout the period in small numbers. American Widgeon: max. 3 Dec. (41). Wood Duck: 21 Jan. (1). Redhead: 11 Dec. (1) (FWB), 26 Feb. (13) BL, WaL. Ring-necked Duck: max. 15 Feb. (80). Lesser Scaup: max. 26 Feb. (221) BL, WaL. Common Goldeneye: max. 29 Jan. (146) BL. Bufflehead: 22 Jan. (1), 8 Feb. (22), 26 Feb. (24). Hooded Merganser: 15 Feb. (1), 26 Feb. (2). Red-breasted Merganser: 8 Feb. (1) WiL (LRH), 15 Feb. (6) WaL (LRH). Turkey Vulture: 23 Feb. (1). Red-tailed Hawk: 15 Dec. (1), 5 Feb. (1) RM. American Coot: first 18 Feb. (1). Common Snipe: 22 Jan. (3), 19 Feb. (1), 24 Feb. (4).

Gulls-Sparrows: Herring Gull: scarce, max. 22 Jan. (20) BL (WAB). Ring-billed Gull: scarce, max. 22 Jan. (12) BL (WAB). Great Horned Owl: 16, 22, 26 Dec. (1) MC (CRS). Red-headed Woodpecker: 19 Jan. (1) (LH). Yellow-bellied Sapsucker: 16 Feb. (1). Hairy Woodpecker: 4, 15, 27 Dec. (1). Horned Lark: present throughout the period in small numbers. Black-capped Chickadee: 4 Dec. (1) BBM (FWB). Red-breasted Nuthatch: very scarce; 17 Dec. (4), 14 Jan. (1). Brown Creeper: 6 Jan. (1), 9 Jan. (2), 15 Jan. (2). Ruby-crowned Kinglet: 15 Jan. (1), 19 Feb. (1). Cedar Waxwing: 8 Feb. (17). Myrtle Warbler: very scarce, 22 Jan. (1). Purple Finch: only 25 Dec. (1) (GD), 22 Jan. (1) (CRS). White-crowned Sparrow: 15 Feb. (13) RC. Swamp Sparrow: 15 Jan. (1), 22 Jan. (2), 8 Feb. (1).

Locations: BBM—Big Bald Mountain, BL—Boone Lake, MC—Milligan College, PHL—Patrick Henry Lake, RC-Roan Creek, RM—Roan Mountain, WaL—Watauga Lake, WiL—Wilbur Lake.

Observers: FWB—Fred W. Behrend, WAB—William A. Bridgforth, Jr., GD—Mrs. George Dove, LRH—Lee R. Herndon, LH—Lois Herndon, CRS—Charles R. Smith.

CHARLES R. SMITH, Route 2, Johnson City 37601.

BOOK REVIEW

BIRDS IN OUR LIVES—A new publication, issued by the U. S. Department of Interior, Bureau of Sport Fisheries and Wildlife, Fish and Wildlife Service, is a huge volume (561 pages: 8" x 11"). Edited by Alfred Steffrud and Arnold Nelson, and illustrated by the well-known wildlife artist, Bob Hines, and by hundreds of excellent photographs.

It is a comprehensive, enlightening and entertaining volume of interest to amateur and professional alike. The authors state that their aim is "to give a wide perspective of birds as they affect and are affected by people, other birds, and other forms of life, and activities." They do a good job. They stress that "the best way to achieve public support for sensitive management and conservation of birds is through a widening of public understanding of birds." They hope to incluence the attitudes and actions of individuals, groups, councils, and communities.

The fifty-four chapters present a brilliant array of professional as well as amateur workers in various aspects of ornithology: Peterson, Pettingill, Cruckshank, Chandler Robbins, the Craigheads, Joseph Hickey, John Kieran, Ira Gabrielson, and many others. The chapters cover a wide range of topics: Birds in the Bible, Birds and Words, Birds and Fine Arts, the Christmas Count, Falconry, Raptors, Birds and Pesticides, Birds at Airports, Refuges and Sanctuaries, and many many more.

This volume will prove a happy hunting ground to any program chairman of a local chapter and will provide much thought-provoking material for any reader.

It is for sale by the Superintendent of Documents, Washington, D. C. 20402. The price is $9.00 and the book is hard cover.

JUDITH A. ABBOTT, 1316 Windsor Avenue, Bristol.

Printed at Bristol, Tennessee; 11 May, 1967.

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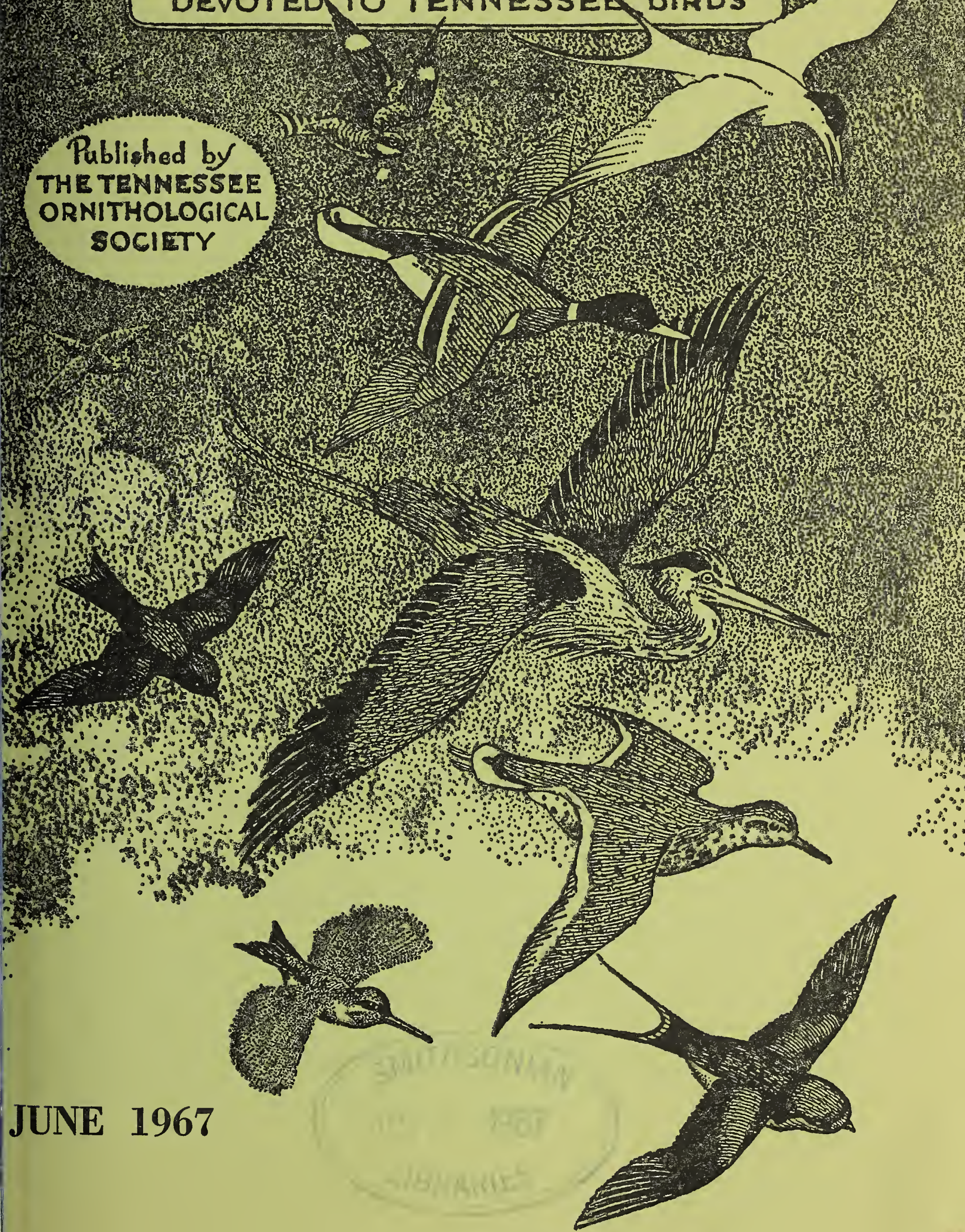

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Most articles published in THE MIGRANT are written by T. O. S. members and comprise their major contribution toward carrying out the Society's purposes. The Editor, like other officers, receives no remuneration for the considerable work he does so the proper preparation of copy will help toward reducing his work. All manuscript should be typed on one side of 8½x11 paper, double spaced, and with good margins. Provide a concise, meaningful title and, where needed, subtitles within the text. Footnotes are not used. Bibliography, when used, should be brief. Examine past issues of THE MIGRANT and follow the style there used, noting that "main articles" and Round Table items are set up differently. Acceptable for inclusion are articles describing the habits of birds as noted from original observations in Tennessee or adjacent areas. Reports on occurrence of unusual species should give full data on the observation so that the record may be evaluated. The value of this publication depends upon the correctness of what it presents so accuracy of statement and identification are obvious requirements. In addition to such articles, are reports on our regularly scheduled projects, such as Spring Migration, Spring Field Counts, Breeding Bird Counts, Hawk Migration, and the Christmas Census. Each of these are reported upon by duly appointed leaders and it is their duty to see that questionable records are eliminated.

THE MIGRANT

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A BRIEF PRELIMINARY STUDY OF NESTING RED-WINGED BLACKBIRDS

BY CHARLES R. SMITH

The Red-winged Blackbird, *Agelaius phoeniceus* (Linnaeus), has been a very popular subject for study by many ornithologists. Also, for the last nine years the Bureau of Sport Fisheries and Wildlife of the United States Fish and Wildlife Service has been engaged in an intensive study of all aspects of the Red-winged Blackbird's life history. The Cooperative Red-winged Blackbird Nestling Banding Program has been an important part of the Fish and Wildlife Service's study, and it was through this program that the author became interested in the nesting habits of the Red-winged Blackbird.

THE AREA

The area in which this study was conducted consists of approximately ten acres of damp, marshy bottomland lying between 1540 and 1560 feet above sea level along Buffalo Creek in Carter County, Tennessee. Bordered on the north by the Milligan College athletic field, the south and east by limited residential areas, and the west by a narrow county road and Buffalo Creek, this area provides a convenient, easily accessible and limited area for study. A large spring at its southwest edge is the source of the water that creates the habitat. The same narrow paved road that borders the marsh on the west also divides it into north and south sections (Figure 1). The south section (Figure 3), being closer to the water source, is usually covered to a depth of approximately six inches by water throughout the nesting season. A drainage ditch has reduced the north section (Figure 2) to merely a damp area, with standing water during periods of heavy rain, which was the weather condition during most of this project. (Marshy or damp areas lie within shaded areas as shown in Figure 1.) Thick grass and other marsh vegetation covers both sections with a few trees scattered throughout the south section. The north section was pastured with cattle during the period included in this study.

PROCEDURE — RESULTS

The first nesting activity was noted on 16 April 1967, with a nest under construction in the south section of the marsh. By the end of April, a total of five nests was found, with five more being added within the first two weeks of May. Further investigation indicated that there were ten females

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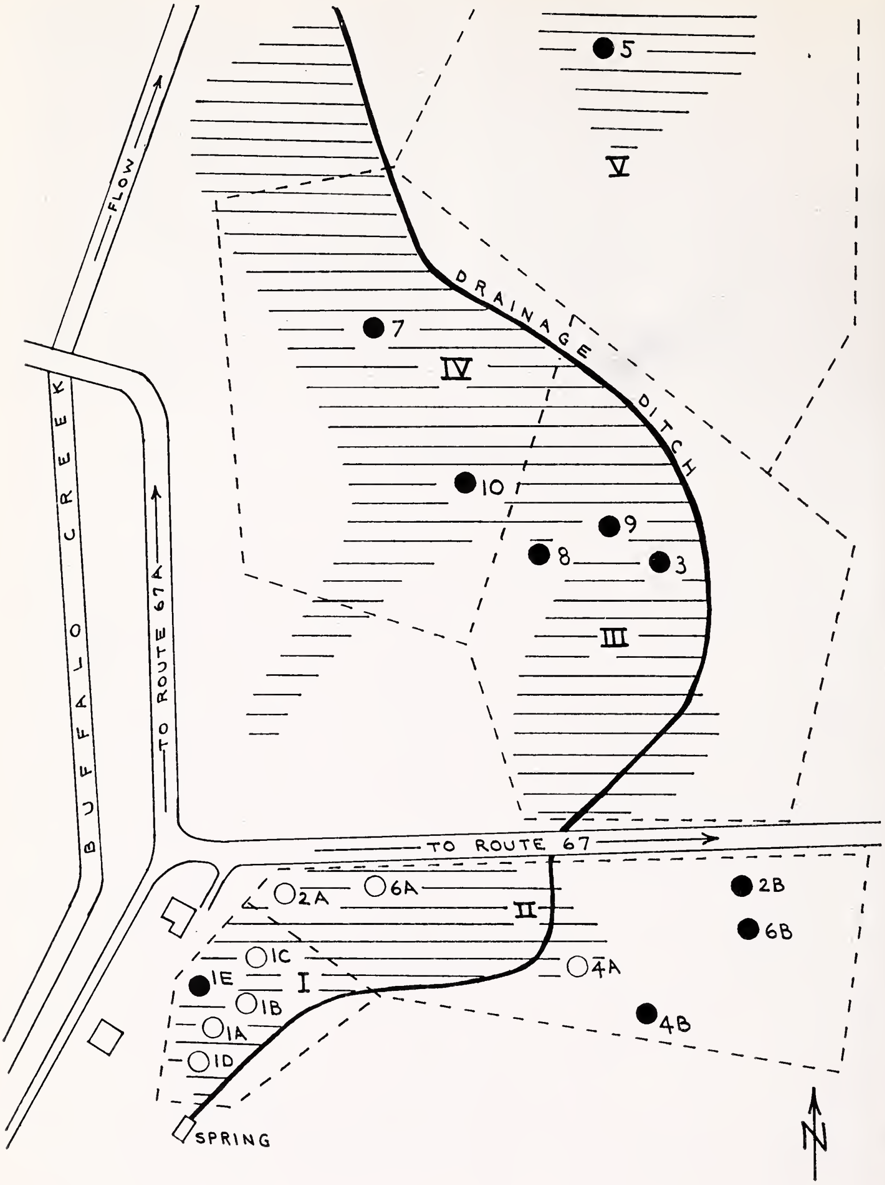

FLOW
BUFFALO CREEK
TO ROUTE 67A
DRAINAGE DITCH
5
V
7
IV
10
9
8
3
III
TO ROUTE 67
2A
6A
II
2B
6B
1C
1E
I
1B
1A
1D
4A
4B
SPRING
N

Figure 1. Unshaded Circle—unsuccessful nest; Shaded Circle—successful nest; Horizontal Lineation—marshy area; Dotted Lineation—approximate territorial boundaries; Squares—houses or other buildings; Roman Numerals—territorial designation; Arabic Numerals—nest designation.

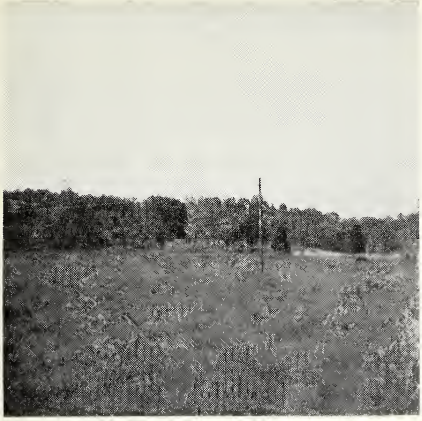


Figure 2. NORTH SECTION OF THE MARSH. LOOKING NORTH FROM THE DIVIDING ROAD.

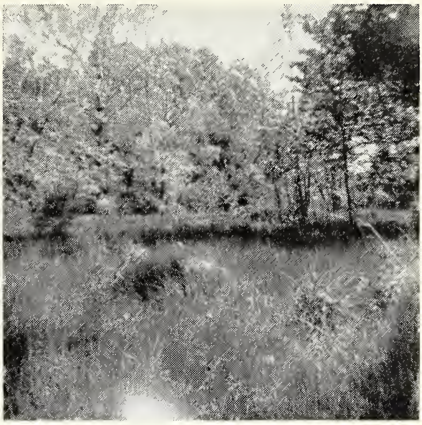
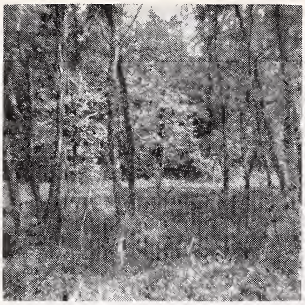


Figure 3. SOUTH SECTION OF THE MARSH. LOOKING SOUTH FROM THE DIVIDING ROAD.

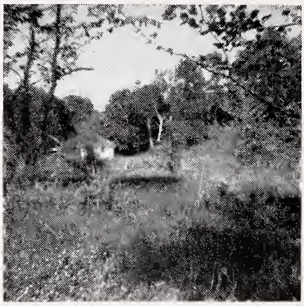
attempting to nest in the area and that there were five males defending territory. A territory in this case consists of that area which is used for mating and nesting and which is frequented by only one male of the species, with other males of the same species being excluded from the chosen territory by combative means, if necessary. Since the Red-winged Blackbird is known to be polygamous in some instances, a territory may contain more than one female. The males and the number of females that they controlled were designated as follows: Male I—Female 1; Male II—Females 2, 4, and 6; Male III—Females 3, 8, and 9; Male IV—Females 7 and 10; Male V—Female 5. The numbers that designate the females actually indicate the order in which the nests were found. Renesting attempts of a female were designated by that individual's number followed by a letter of the alphabet corresponding to the attempt (e.g. 1A, 1B, etc.). In Figure 1, shaded circles indicate successful nesting efforts, while unshaded circles indicate unsuccessful nesting efforts. The extent of the territories of the males was established through direct observation of ther attitudes within a given area and toward each other. Other species, especially the Starling, *Sturnus vulgaris* Linnaeus, were often chased from a territory. On at least two occasions, another male Red-winged Blackbird (apparently unmated) was driven from the corresponding territories of Males I, II, and III; however, actual territorial conflicts among established males were seldom noted. The territories of the five males studied and the relative locations of nests within them are indicated in Figure 1, with the boundaries of the territories indicated by dotted lines. Observations showed that the less aggressive males were forced into less suitable habitats and maintained fewer females. In this case, Males I, IV, and V appeared to be the less aggressive members of this small nesting group.

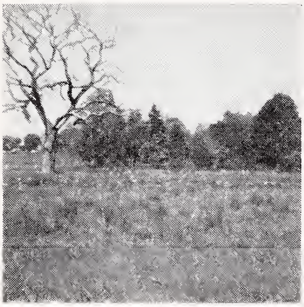
Weather and predators of an undetermined nature destroyed seven nests. As a result, four females made two or more nesting attempts. Those females which made more than one nesting attempt and the number of nesting attempts made are as follows: Female 1—five; Female 2—two; Female 4—two; Fe- above nesting attempts were in the south section of the marsh which appears male 6—two. In each of these cases the final effort was successful. All of the



← Figure 4
Territory I
Looking Southeast

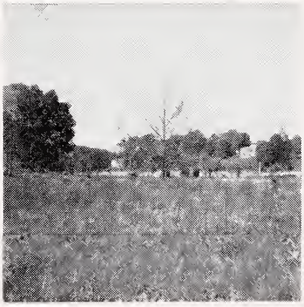
Figure 5 →
Territory II
Looking East

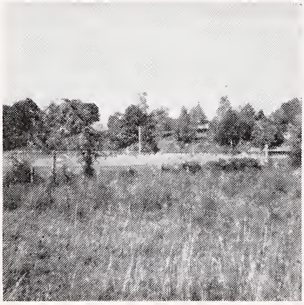




← Figure 6
Territory III
Looking Northeast

Figure 7 →
Territory IV
Looking North





← Figure 8
Territory V
Looking Northeast

to be frequented often by Muskrats, *Ondatra zibethica.* The tree in which Nest 2A was located was uprooted by a windstorm, destroying the nest, and Nest 6A was evidently too high to have been the victim of Muskrat predation since measurements showed that it was six feet up in a small tree (average nest height was approximately thirteen inches for all nests found). A nesting attempt was considered successful if at least one young bird survived to leave the nest. Of the seventeen nests which were found during the period of study, 41.2% were successful and 58.8% were unsuccessful, producing no young which survived to leave the nest. An even greater difference in percentages is noted when one considers the total number of eggs laid and the actual number that hatched. Eighty-eight eggs were produced from the seventeen nests studied, with from two to four eggs per clutch. Of these eighty-eight eggs, 38.6% hatched and 61.4% failed to hatch. It is presently unknown to the author whether or not such a high mortality rate is characteristic of this species or the exact relationship between mortality and habitat selection. However, in this case, mortality was greater in the damper south section of he marsh. Although the evidence is inconclusive at this time, this would seem to indicate that the dryer portions of the habitat are more conducive to nesting success.

On two occasions, feeding of nestlings was observed and frequency of feeding was recorded. During a period of one hour on 17 May, feeding of three nestlings in Nest 8 was observed. During this period, both male and female fed the young, with trips to the nest often being only thirty seconds apart. The young were approximately six days old. Although Male III had two other nests in his territory, this was the only nest with large young on that date. A total of twenty-four trips was made to the nest during the one-hour period of observation. On 4 June, a similar observation was conducted involving Nests 2B and 4B. Only the females fed the young during this period. Both nests were in the territory of Male II, but both nests also contained young approximately six days old. Nest 2B had three young and Nest 4B had four young. During the one-hour period, Female 2 visited the nest fifteen times and removed fecal wastes six times; Female 4 visited her nest thirteen times and also removed fecal wastes six times. Comparison of these results with those of Nest 8 suggests that the assistance of the male approximately doubles the frequency of visits to the nest. The degree to which the male cares for the young may be influenced by the number of nestlings to be cared for. Male II, with two nests of young of approximately the same age, did not visit either nest during the period of observation. On the other hand, Male III, with only one nest of large young, assisted the female consistently in caring for the young.

An aspect of territory which was noted only once was the apparent possession of a feeding territory by a female within the territory of the male. On at least one occasion, Female 8 repeatedly chased Females 3 and 9 from an area in which she was gathering food for her young; however, observation of a similar placement of nests in Territory II indicated no such antagonism among females. This could be just a peculiarity of the individual bird; however, it justifies further investigation. Other peculiarities might be noted and a pattern of behavior established in this respect.

(Concluded on Page 45)

THE 1967 SPRING FIELD DAYS

By T.O.S. Members

Counts were submitted from a total of thirteen areas across Tennessee. The total number of species seen for the count was a very high 206. Knoxville's count led all others with a total of 152 species. They were followed closely by Chattanooga with 151. The lowest count in the State was 48 from Lebanon.

INFORMATION ON THE COUNTS

In the species tabulation and description that follow, the localities are listed from west to east. The species are in AOU Check-list order in the table.

MEMPHIS—Counts were taken in the locality of Shelby Forest State Park and Booker, Arkansas. 30 April 1967; weather: cloudy to partly cloudy with temperatures ranging from 67°F to 73°F; total: 85 species. Compiler: Ben B. Coffey.

REELFOOT—Counts were taken on the lake and adjacent areas within the limits of the Christmas Bird Count. 29 April 1967; 6:30 A.M. to 6:00 P.M.; weather: partly cloudy with wind gusty from 0-20 mph; total: 122 species. The Mallards were the semi-domesticated wild stock birds at Reelfoot State Park and at Samburg. The Blue Goose was a young bird which, apparently, had gotten separated from its kind during the spring migration and had become semi-domesticated with the Mallards. Fifteen observers in five parties: Gwen Burrus, Ben Coffey, Lula Coffey, Mary Louise Cypert, Helen Dinkelspiel, Darrell Hanna. Mrs. Darrell Hanna, Kenneth Leggett, Ben Lindamood, Helen Lindamood, William E. Lindamood, Alice Smith, Noreen Smith, Betty Sumara. Compiler: Eugene Cypert.

PARIS LANDING STATE PARK—Land Between the Lakes, Fort Donelson National Military Park and Paris Landing State Park. 6 and 7 May 1967; weather: cloudy with occasional drizzle and temperatures from 58°F to 68°F; total: 135 species. Observers: approximately 150 members and guest of the Tennessee Ornithological Society attending the annual state meeting. Compiler: Ben B. Coffey.

SAVANNAH—30 April 1967; weather: cloudy in the morning, little wind with temperatures from 55°F to 75°F; total: 102 species. The Slate-colored Junco was two weeks later than any other record here. It had a conspicuous bulge on the nape of the neck. Observers: David Patterson, Mike Patterson, Norma Patterson, Andrew Rimmer, John Williams, Bob Wint, Wendell Wint. Compiler: David Patterson.

COLUMBIA—2 and 3 May 1967; weother: clear with temperatures from 35°F to 70°F and the wind NW 5-15 mph; total: 143 species. In a flooded marsh and plowed field near the Monsanto Chemical plant and its many large lakes and ponds we found a Willet and eight Willets at the Airport Lake. Six Dunlin, four dowitcher, and six Black-bellied Plover, all were observed at Monsanto. These represent the first records in the last seven years of the Willet and Dunlin and the second records of the Black-bellied Plover and dowitcher. Observers: Dr. and Mrs. Fuqua, Dr. and Mrs. Daniel Gray, Mrs. George R. Mayfield, Jr. Compiler: Dr. George R. Mayfield, Jr.

NASHVILLE—Extending from Old Hickory Lake to the northern part of Williamson County and to the Ashland City Marsh, the same area worked in recent years. 22 April 1967; weather: fair and warm with some pre-dawn showers; total: 133 species, 1 hybrid. The hybrid, a Brewster's Warbler, was found in the Fernvale area of Williamson County by Miss Annella Creech and

TABULAR RECORD OF SPRING FIELD DAYS 1967

	Memphis	Reelfoot	Paris Landing	Savannah	Columbia	Nashville	Boxwell	Lebanon	Cookeville	Chattanooga	Knoxville	Kingsport	Elizabethton
Common Loon	--	--	--	--	--	--	--	--	--	4	--	2	1
Red-throated Loon	--	--	--	--	--	--	--	--	--	--	1	--	--
Pied-billed Grebe	--	4	2	1	4	12	--	--	--	6	3	2	2
Double-crested Cormorant	--	1	--	--	--	--	--	--	--	--	--	--	--
Great Blue Heron	--	11	1	--	1	--	--	1	--	4	2	1	--
Green Heron	1	1	10	4	8	10	--	3	--	21	24	3	6
Little Blue Heron	--	37	--	--	1	--	1	--	--	1	1	--	--
Common Egret	--	10	--	--	--	2	--	--	--	2	--	--	--
Black-crowned Night Heron	--	--	--	--	--	--	1	--	--	--	11	--	--
Yellow-crowned Night Heron	--	12	--	--	1	--	--	--	--	2	3	--	--
Least Bittern	--	1	--	--	--	--	--	--	--	--	--	--	--
American Bittern	--	3	4	--	1	--	--	--	--	6	1	1	1
Canada Goose	1	--	--	--	--	--	3	--	--	2	--	--	--
Blue Goose	2	1	--	--	--	--	--	--	--	--	--	--	--
Mallard	--	129	12	--	9	8	2	--	--	3	--	--	2
Black Duck	--	--	3	--	--	--	--	--	--	3	2	--	--
Gadwall	--	2	--	--	--	--	--	--	--	1	11	--	--
Blue-winged Teal	2	92	3	--	17	52	--	--	--	38	16	2	2
American Widgeon	--	--	--	--	4	--	--	--	--	1	--	--	--
Shoveler	--	1	4	--	1	44	--	--	--	4	2	--	2
Wood Duck	1	13	11	--	3	17	--	30	--	20	35	13	7
Ring-necked Duck	--	--	--	--	--	30	--	--	--	--	7	1	1
Greater Scaup	--	--	--	--	--	--	--	--	--	97	--	--	--
Lesser Scaup	--	50	45	2	24	127	--	--	--	207	3	5	162
Common Goldeneye	--	--	--	--	--	--	--	--	--	--	--	--	1
Bufflehead	--	--	--	--	--	1	--	--	--	--	--	--	35
Ruddy Duck	--	2	--	--	6	8	--	--	--	13	--	--	22
Hooded Merganser	--	--	--	1	--	--	--	--	--	--	--	--	--
Common Merganser	--	--	1	--	--	--	--	--	--	--	--	--	--
Red-breasted Merganser	--	1	1	--	1	--	--	--	--	1	--	--	1
Turkey Vulture	--	11	19	6	4	52	3	--	2	6	1	7	3
Black Vulture	2	5	--	1	4	20	--	4	--	4	--	--	--
Mississippi Kite	1	--	--	--	--	--	--	--	--	--	--	--	--
Sharp-shinned Hawk	--	--	--	--	--	--	--	--	--	--	1	--	4
Cooper's Hawk	--	--	--	--	--	2	--	--	1	1	2	--	--
Red-tailed Hawk	--	--	1	1	3	9	1	1	--	4	4	2	--
Red-shouldered Hawk	--	3	1	--	1	1	--	--	--	3	--	--	--
Broad-winged Hawk	--	--	3	1	1	6	--	--	2	7	--	--	--
Marsh Hawk	--	--	--	--	--	1	--	--	--	2	--	--	--
Osprey	--	2	1	--	--	8	--	--	--	--	4	--	1
Sparrow Hawk	--	--	1	--	7	16	1	--	1	3	1	2	1

	Memphis	Reelfoot	Paris Landing	Savannah	Columbia	Nashville	Boxwell	Lebanon	Cookeville	Chattanooga	Knoxville	Kingsport	Elizabethton
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	--	1	--
Bobwhite	1	5	62	32	41	96	11	27	35	92	166	45	42
Turkey	3	2	--	--	--	--	--	--	--	--	--	--	--
King Rail	--	--	--	--	--	--	--	--	--	4	--	--	--
Virginia Rail	--	--	--	--	--	--	--	--	--	1	--	--	--
Sora	--	2	--	--	1	1	--	--	--	17	--	--	--
Common Gallinule	--	1	--	--	--	--	--	--	--	--	1	--	--
American Coot	12	177	6	3	75	87	7	--	3	331	16	3	7
Semipalmated Plover	--	10	--	--	2	2	--	--	--	--	1	1	--
Killdeer	2	25	24	11	17	24	5	2	3	53	45	1	4
Black-bellied Plover	--	2	--	--	6	--	--	--	--	--	--	--	--
American Woodcock	--	--	--	1	4	--	--	--	--	--	3	--	--
Common Snipe	--	2	--	1	6	12	--	--	2	15	12	1	4
Spotted Sandpiper	11	2	25	6	19	5	2	--	--	11	17	3	3
Solitary Sandpiper	--	28	1	--	3	3	--	--	--	8	27	7	1
Willet	--	--	--	--	9	1	--	--	--	--	--	--	--
Greater Yellowlegs	--	27	--	--	3	--	--	--	--	1	--	4	--
Lesser Yellowlegs	--	175	9	--	38	3	--	--	--	2	5	16	2
Pectoral Sandpiper	--	210	--	--	3	1	--	--	--	--	--	--	--
Least Sandpiper	--	--	7	--	12	--	--	--	--	--	7	23	--
Dunlin	--	--	--	--	6	--	--	--	--	--	1	--	--
Short-billed Dowitcher	--	4	--	--	4	--	--	--	--	--	--	--	--
Semipalmated Sandpiper	--	--	4	--	3	--	--	--	--	--	--	--	--
Herring Gull	--	--	3	--	--	--	5	--	--	2	--	--	--
Ring-billed Gull	--	--	--	45	1	3	2	--	--	5	--	--	5
Forster's Tern	--	--	3	--	2	--	--	--	--	--	--	--	--
Common Tern	--	3	4	--	6	--	--	--	--	--	--	--	--
Black Tern	--	--	2	--	1	--	--	--	--	--	--	--	--
Mourning Dove	4	58	55	43	26	135	7	13	93	181	281	62	68
Yellow-billed Cuckoo	1	2	12	--	1	8	--	5	4	5	4	3	--
Black-billed Cuckoo	--	--	1	--	--	--	--	--	--	--	--	1	1
Screech Owl	--	--	--	--	1	--	--	--	1	3	2	2	8
Great Horned Owl	--	--	--	--	1	--	--	--	--	1	--	--	--
Barred Owl	--	5	2	--	2	5	--	--	--	--	--	--	--
Chuck-will's-Widow	--	--	5	1	1	5	2	2	1	7	17	1	--
Whip-poor-will	--	--	2	5	5	19	--	--	2	8	6	1	1
Common Nighthawk	--	1	2	1	2	4	6	--	--	15	8	25	4
Chimney Swift	8	36	55	32	150	123	12	15	103	159	274	49	98
Ruby-throated Humming Bird	13	13	7	1	1	5	1	--	2	15	9	--	3
Belted Kingfisher	1	1	3	1	11	12	2	1	1	13	12	6	5
Yellow-shafted Flicker	3	9	14	6	--	18	--	4	24	80	72	10	61
Pileated Woodpecker	3	15	5	6	4	23	2	--	6	9	25	4	8

	Memphis	Reelfoot	Paris Landing	Savannah	Columbia	Nashville	Boxwell	Lebanon	Cookeville	Chattanooga	Knoxville	Kingsport	Elizabethton
Red-bellied Woodpecker	16	14	26	4	20	65	--	6	11	36	42	7	11
Red-headed Woodpecker	18	27	8	3	4	3	--	--	17	9	20	1	1
Yellow-bellied Sapsucker	--	--	--	--	--	1	--	--	2	3	--	--	3
Hairy Woodpecker	2	3	2	--	1	3	--	1	6	4	7	1	--
Downy Woodpecker	10	7	23	3	16	30	--	5	19	20	37	8	11
Eastern Kingbird	1	32	22	16	22	38	4	13	9	26	38	16	16
Great Crested Flycatcher	6	46	21	12	8	22	--	3	7	24	49	14	9
Eastern Phoebe	1	5	3	2	9	41	--	6	5	14	56	4	26
Acadian Flycatcher	12	2	5	2	7	4	--	--	--	1	7	6	1
Traill's Flycatcher	--	--	--	--	--	--	--	--	--	--	--	1	--
Least Flycatcher	--	--	--	--	--	--	--	--	--	1	--	--	10
Eastern Wood Pewee	14	15	28	11	11	6	1	2	3	28	22	16	3
Horned Lark	3	28	--	3	15	4	--	--	--	3	17	1	4
Tree Swallow	8	1487	1	--	8	--	4	--	6	28	2	2	9
Bank Swallow	--	12	5	--	4	--	3	--	7	--	--	--	2
Rough-winged Swallow	--	117	29	21	35	24	6	--	2	67	74	8	26
Barn Swallow	4	45	66	24	63	117	9	66	37	98	198	30	67
Cliff Swallow	--	--	280	170	2	22	3	2	5	75	1	--	--
Purple Martin	1	18	5	7	5	90	--	38	5	323	140	55	10
Blue Jay	10	15	64	34	41	208	17	92	145	293	330	82	197
Common Crow	5	83	28	13	34	93	39	19	46	121	188	49	109
Fish Crow	1	6	--	--	--	--	--	--	--	--	--	--	--
Carolina Chickadee	27	57	45	7	33	114	8	21	23	70	117	30	28
Tufted Titmouse	37	47	39	14	23	125	3	23	34	78	128	47	53
White-breasted Nuthatch	--	1	1	2	2	8	--	--	--	4	4	2	2
Red-breasted Nuthatch	--	--	2	--	--	--	--	--	--	6	1	--	--
Brown Creeper	--	--	--	--	--	--	--	--	--	--	--	1	--
House Wren	--	--	--	--	--	2	--	--	6	--	2	19	14
Winter Wren	--	--	--	--	--	--	--	--	--	1	--	--	--
Bewick's Wren	--	--	4	1	1	6	--	6	7	2	--	1	--
Carolina Wren	41	44	40	5	7	40	--	8	10	65	130	20	38
Long-billed Marsh Wren	--	--	--	--	--	--	--	--	--	1	1	--	--
Short-billed Marsh Wren	--	--	--	--	--	--	--	--	--	--	3	--	--
Mockingbird	5	21	9	29	37	176	3	75	69	206	364	49	121
Catbird	3	4	19	8	19	17	7	6	29	60	71	6	32
Brown Thrasher	12	4	24	20	21	82	--	31	39	82	93	3	59
Robin	4	9	33	23	19	134	3	39	81	296	297	55	240
Wood Thrush	24	4	47	12	15	38	--	--	15	101	118	43	58
Hermit Thrush	--	--	1	--	--	--	--	--	--	1	1	--	1
Swainson's Thrush	18	1	27	1	6	2	--	--	1	1	11	8	--
Gray-cheeked Thrush	3	--	3	--	--	--	--	--	--	--	--	--	--
Veery	--	--	7	1	6	--	--	--	7	3	1	--	1

	Memphis	Reelfoot	Paris Landing	Savannah	Columbia	Nashville	Boxwell	Lebanon	Cookeville	Chattanooga	Knoxville	Kingsport	Elizabethton
Eastern Bluebird	1	19	44	18	22	140	2	31	54	52	95	7	18
Blue-gray Gnatcatcher	33	93	52	11	53	77	13	--	3	24	55	6	4
Ruby-crowned Kinglet	--	--	--	--	--	5	--	--	--	6	71	4	11
Water Pipit	--	--	--	--	--	--	--	--	--	--	6	--	--
Cedar Waxwing	--	--	18	--	--	--	--	--	--	9	20	--	--
Loggerhead Shrike	--	17	5	3	5	36	--	1	2	5	20	7	1
Starling	22	300	25	82	225	1039	15	Common	235	1245	1290	100	601
White-eyed Vireo	20	38	73	22	19	100	1	--	12	36	60	11	20
Yellow-throated Vireo	4	5	7	1	5	7	2	--	6	11	11	1	2
Solitary Vireo	--	--	--	--	--	1	--	--	--	--	3	--	11
Red-eyed Vireo	30	20	41	8	11	55	--	--	6	61	103	26	35
Philadelphia Vireo	--	--	--	--	--	--	--	--	--	--	1	--	--
Warbling Vireo	--	7	3	--	1	6	--	--	--	--	1	--	2
Black and White Warbler	1	--	2	4	6	11	--	--	1	22	34	8	20
Prothonotary Warbler	20	87	7	4	5	41	1	--	1	10	10	--	--
Swainson's Warbler	6	1	--	--	--	--	--	--	--	--	--	--	--
Worm-eating Warbler	--	--	6	4	4	7	1	--	--	6	14	7	3
Golden-winged Warbler	--	1	4	--	1	--	--	--	--	--	6	--	3
Blue-winged Warbler	--	1	23	5	13	25	--	--	--	1	6	--	--
Brewster's Warbler	--	--	--	--	--	1	--	--	--	--	--	--	--
Tennessee Warbler	32	18	21	1	24	--	--	--	--	16	15	4	--
Orange-crowned Warbler	--	--	--	--	--	--	--	--	--	2	1	--	--
Nashville Warbler	--	1	1	--	2	1	--	--	--	--	7	--	1
Parula Warbler	30	19	4	5	10	5	--	--	--	2	4	4	5
Yellow Warbler	--	6	4	2	10	24	3	--	2	26	71	12	44
Magnolia Warbler	--	--	2	--	1	1	--	--	--	7	10	3	1
Cape May Warbler	--	--	5	--	3	--	--	--	--	5	2	2	--
Black-throated Blue Warbler	--	--	--	--	--	--	--	--	--	--	4	--	9
Myrtle Warbler	12	139	75	26	7	43	19	--	3	138	152	5	25
Black-throated Green Warbler	1	--	10	--	2	--	1	--	--	1	39	10	8
Cerulean Warbler	17	3	8	--	32	33	1	--	--	--	35	5	--
Blackburnian Warbler	--	--	2	--	2	1	--	--	--	2	11	15	3
Yellow-throated Warbler	1	8	4	--	4	15	--	--	7	1	4	3	--
Chestnut-sided Warbler	4	--	3	--	5	1	--	--	--	1	17	4	7
Bay-breasted Warbler	1	--	--	1	--	4	--	--	--	--	1	8	--
Blackpoll Warbler	4	4	19	4	1	6	--	--	--	7	5	32	--
Pine Warbler	--	--	5	8	--	1	2	--	--	15	4	1	--
Prairie Warbler	--	--	55	15	4	25	6	--	--	16	70	11	7
Palm Warbler	--	20	54	7	7	12	2	--	2	19	16	1	--
Ovenbird	--	--	5	1	8	4	--	--	3	2	28	21	39
Northern Waterthrush	--	4	1	4	6	5	--	--	--	2	1	--	1
Louisiana Waterthrush	5	--	8	2	5	30	--	--	--	9	3	12	4

	Memphis	Reelfoot	Paris Landing	Savannah	Columbia	Nashville	Boxwell	Lebanon	Cookeville	Chattanooga	Knoxville	Kingsport	Elizabethton
Kentucky Warbler	31	32	17	1	13	45	--	--	--	17	32	22	2
Yellowthroat	10	95	69	9	20	51	3	--	21	53	109	13	36
Yellow-breasted Chat	16	29	41	14	16	49	9	2	10	45	68	11	24
Hooded Warbler	6	--	5	3	8	10	--	--	--	5	25	18	12
Wilson's Warbler	--	--	--	--	--	1	--	--	--	--	1	--	--
Canada Warbler	--	--	--	--	--	--	--	--	--	4	9	4	--
American Redstart	44	12	9	1	7	14	--	--	--	2	9	3	5
House Sparrow	--	302	15	62	50	161	--	45	91	698	245	52	212
Bobolink	--	--	--	--	9	--	--	--	--	--	--	--	1
Eastern Meadowlark	2	57	30	23	28	754	18	49	142	261	434	76	164
Red-winged Blackbird	9	550	57	34	154	347	29	10	54	251	550	39	68
Orchard Oriole	13	7	49	22	15	117	5	10	14	20	59	12	10
Baltimore Oriole	20	33	8	3	3	8	3	--	1	10	11	3	3
Rusty Blackbird	--	--	--	--	--	--	5	--	6	3	1	--	--
Common Grackle	46	157	75	140	70	1569	157	128	156	339	966	215	873
Brown-headed Cowbird	58	213	91	35	32	682	7	--	25	59	189	42	44
Scarlet Tanager	2	1	15	3	11	16	1	--	--	10	34	21	28
Summer Tanager	19	19	55	14	9	62	1	9	11	39	47	23	1
Cardinal	41	120	68	36	32	298	33	64	151	174	423	90	172
Rose-breasted Grosbeak	8	8	39	4	15	4	--	--	2	10	25	12	5
Blue Grosbeak	--	--	--	4	--	--	--	--	1	38	15	2	--
Indigo Bunting	50	181	78	63	37	126	12	28	31	139	174	73	21
Dickcissel	--	77	3	24	23	--	--	--	--	--	1	--	--
Purple Finch	--	--	--	--	--	4	--	--	8	--	--	--	--
American Goldfinch	8	49	36	36	23	295	--	2	58	81	266	18	157
Rufous-sided Towhee	2	1	69	27	19	91	3	13	46	191	209	36	100
Savannah Sparrow	--	16	11	3	2	5	2	--	--	13	25	--	6
Grasshopper Sparrow	--	--	--	1	6	2	--	--	1	3	19	--	11
Vesper Sparrow	--	--	--	--	--	--	--	--	2	--	1	--	2
Bachman's Sparrow	--	--	--	--	--	--	--	--	--	--	1	1	--
Slate-colored Junco	--	--	--	1	--	1	--	--	2	3	--	--	4
Chipping Sparrow	1	3	21	14	9	118	8	--	24	51	49	6	49
Field Sparrow	2	29	45	12	25	97	14	15	26	75	148	30	41
White-crowned Sparrow	--	1	1	--	18	14	2	--	1	8	10	--	6
White-throated Sparrow	35	32	38	17	14	91	17	--	80	75	154	3	87
Fox Sparrow	--	--	--	--	--	--	--	--	--	1	--	--	--
Lincoln's Sparrow	--	--	5	--	--	--	2	--	--	--	--	--	--
Swamp Sparrow	--	1	3	4	4	1	3	--	--	3	114	--	1
Song Sparrow	--	--	1	--	--	--	--	--	26	93	209	63	100
TOTAL SPECIES	**85**	**122**	**135**	**102**	**143**	**133**	**69**	**48**	**86**	**151**	**152**	**118**	**122**

Mrs. Milbrey Dugger of Mr. John Ellis' party. The Willet was seen in the Old Hickory Lake area by Mrs. Carol Knauth's party which included Steve Greenfield and Mrs. Margaret Mann. This is the fourth listing of a Willet in the Nashville area. Compiler: Clyde D. Anderson.

BOXWELL—Camp Light and Camp Parnell sections of Boxwell Reservation on Old Hickory Lake about ten miles south of Gallatin. 28 April 1967; weather: clear to partly cloudy with temperatures from 40°F to 78°F; total: 69 species. The area covered on foot was ten miles and there were two observers. Compilers: Tom Deal and Lamont Ingalls.

LEBANON—29 and 30 May 1967; weather fine except for showers in the afternoon; total: 48 species. (There were no other details sent with the Lebanon report except a list of species and numbers—Editors.)

COOKEVILLE—22 April 1967; weather: rain in early morning; clear and sunny after 8:00 A.M. with temperatures from 55°F to 75°F; total: 86 species. There were 17 observers in 11 parties with 72 party hours and 15 party miles on foot and 95 party miles by car. Observers: Edwinna Cummins, John Cummins, Ralph Dunckel, Caprice Haile, Raymond High, Roy T. Hinds, Paul H. Hollister, Amy Johnson, Ray Jordan, Marjorie McGee, Sidney McGee, Annice Moore, Martin Nowak, M. R. Richmond, Thelma Tinnon, Robert Toline. Compiler: Marie White.

CHATTANOOGA—30 April 1967; weather: clear and dry, with a steady 5-10 mph southern wind with no precipitation and temperatures from 54°F to 73°F; total: 151 species. The Greater Scaup were observed by two separate parties. The Virginia Rail was recorded by the DeVore party at Amnicola Marsh, where it had been seen for one week. The Long-billed Marsh Wren was also recorded at Amnicola Marsh. Observers: Francis Barnwell, Sarah Barton, Dr. W. K. Butts, Maxine Crownover, Roberta Doub, Kenneth Dubke, Roy Evenson, Dr. and Mrs. John R. Freeman, Howard and Mary Lou Meadors, Gladys C. Nelson, Mable Norman, William L. Phillips, Veta Sliger, Charles Sterchi, Roger Swanson, Mary Tunsburg, Chuck Turner, Jack Wagoner, Gene and Adele West. Compiler: Jon DeVore.

KNOXVILLE—All of Knox County was included in the area. 30 April 1967; weather: the day was cloudy with temperatures from 53°F to 77°F; total: 152 species. The Red-throated Loon was found by Tony Koella who studied it for almost an hour through a 30-power scope. The loon was still in winter plumage. The Dunlin and Semipalmated Plover were found by James T. Tanner and Fred Alsop, and were seen later by Koella. Ten of the Black-crowned Night Herons were in a nesting colony. Compiler: J. B. Owen.

KINGSPORT—13 May 1967; weather: cool, cloudy, rain; 7:00 A.M. to 9:00 A.M.; total: 118 species. First Kingsport Spring Census record for American Bittern, Common Snipe, Traill's Flycatcher, and first Spring Census without Ruby-throated Hummingbird, Grasshopper Sparrow. Observers: Charles Baker, Marie Brown, Ed Gift, George Rodgers, Arthur Smith, Ann Switzer. Compiler: Tom Finucane.

ELIZABETHTON—Same areas were covered as on previous spring counts. 30 April 1967; weather: from fair to partly cloudy with light showers in the afternoon and temperature of about 68°F; total: 122 species. The count covered a period of twenty-four hours from 6:00 P.M. on 29 April through 6:00 P.M. on 30 April. Observers: Bill Bridgforth, Mrs. Harold Dillenbeck, Joy Dillenbeck, Mrs. George Dove, Mr. and Mrs. C. W. Fairbanks, Dick Finucane, Thomas W. Finucane, Dr. and Mrs. Lee R. Herndon, Roby D. May. Compiler: Charles R. Smith.

T.O.S. ANNUAL MEETING, 1967

By Maxie Swindell, *Secretary*

The Memphis Chapter was host at the annual meeting of the Tennessee Ornithological Society on 5, 6, and 7 May. About 150 members and guests assembled at Paris Landing State Park to enjoy the excellent programs and field trips.

Friday evening the Registration Committee was kept busy in the Inn lobby until time for the movie on Mark Catesby, "The Colonial Naturalist" to begin. Delicious refreshments were served at Open House following the program.

On Saturday and Sunday mornings, members had a choice of field trips; the Gatlin Point Area, Fort Donelson Military Park, the Bootlegger's House (I heard the bootlegger departed so hurriedly he left all his equipment in the basement), or the Boswell Point Area.

Directors gathered in the Patio Room at 1:30 p.m. Saturday afternoon for the business session. The President, Mrs. H. C. Garlinghouse, called the meeting to order. Main items of business were the Treasurer's report, the proposed changes in the Constitution, and officers for 1967-1968. Miss Annella Creech gave the Treasurer's report. Mrs. William F. Bell, Chairman of the Constitution Committee, explained the reasons for proposed changes in the Constitution. Mrs. Ben Coffey, Chairman of the Nominating Committee, presented the following slate: President—Robert W. McGowan; Vice-presidents, West—Earl Fuller, Middle—Mrs. F. C. Laskey, East—Wallace Coffey; Secretary—Mrs. Henry Dinkelspiel; Treasurer—Miss Annella Creech; Curator—Albert Ganier; Editor—Dr. Lee Herndon; Directors-at-Large, West—Dr. W. H. Blackburn, Middle—John O. Ellis, East—Charles R. Smith. These reports were received as presented.

Miss Mary Davant presided at the Paper Session which began at 3:30 in the Patio Room. Ben B. Coffey presented a bird foreign to Tennessee, with his "Calls of Mexican Nightjars." Robert McGowan talked of a native bird in his "Preliminary Report of a Breeding Census of the Pileated Woodpecker at Shelby Forest State Park, Shelby County, Tennessee."

The printed Schedule of Events for the meeting listed "Banquet—Saturday, 7:00 p.m." At that time birds were all but forgotten as bridwatchers feasted on a variety of foods which tasted every bit as good as they looked. At 8 o'clock the President presided over a short business session. She extended a welcome to all prsent, and expressed the gratefulness our entire membership feels in having with us two of the founders of the Society, Dixon Merritt and Albert Ganier, and the wife of another of the founders, Mrs. George Mayfield, who brought with her some future TOS members—her delightful grandchildren. The President also told the Society of the distinguished awards bestowed on two of the members since the 1966 meeting: Mr. Ganier received the Governor's Award for Conservationist of the Year for the State of Tennessee; and Mrs. F. R. Laskey (Amelia to her many friends) has been elected as a Fellow in the American Ornithologists Union, an honor awarded only a very few women.

Dr. Katherine Goodpasture is the State Coordinator for the U. S. Fish and Wildlife's Cooperative Breeding Bird Survey for this second year of effort to learn more about the abundance of breeding birds.

Mrs. Louis F. Smith, Chairman, read the following Resolutions of her Committee:

WHEREAS, THE TENNESSEE ORNITHOLOGICAL SOCIETY, assembled at its fifty-second annual meeting 5, 6, and 7 May 1967 at Paris Landing State Park,

AND RESOLVED that the Society wishes to express its sincere appreciation to our host, Memphis Chapter,

To Mrs. Henry Dinkelspiel, Vice-President for West Tennessee, and to her advisors—Mrs. Ben Coffey, Mrs. Leslie Kostka, Robert McGowan, and Earl Fuller—for the planning and arrangements for this meeting;

To Dr. and Mrs. Arlo Smith for handling of registration;

To Mrs. Robert McGowan and Mrs. Bill Lawhon for art work and to Mrs. Lawhon for arranging accommodations;

To Mrs. Edward Carpenter for refreshments;

To Mrs. W. D. Stitt for decorations;

To Henry Dinkelspiel for printing and mailing of material;

To Bill Lawhon for hike plans and map layout;

AND RESOLVED that Robert Howes be accorded our thanks for his presence and informative address, and that we thank Mrs. Garlinghouse and our officers for their efforts for the Society this year;

AND, in particular, we express our appreciation to our founders, Dixon Merritt and Albert Ganier, for their continued devotion and leadership to TOS through these 52 years

JOHNETA SMITH
ELLEN STRINGER
DAN GRAY

The President announced that the action taken by the Board of Directors was to accept the proposed slate of officers and the proposed changes to the Constitution. Approval of the members was given in support of the Board's decision. She also expressed the thanks of the Society to Mr. Boswell and his Park staff for their part in making the meeting enjoyable and successful.

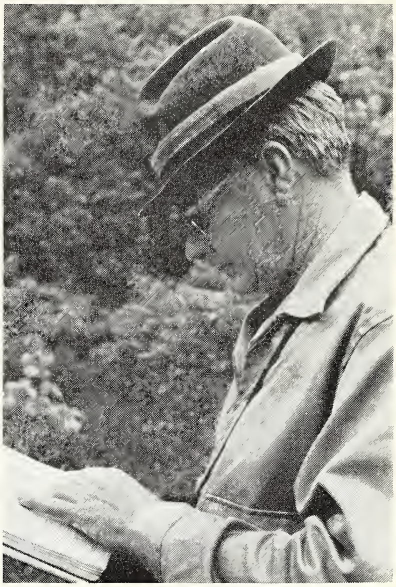
Mrs. Henry Dinkelspiel presented the speaker of the evening. Robert M. Howes, Director of Land Between the Lakes, gave an interesting talk on "Land Between the Lakes—Past and Future," and ended the talk with a movie showing a typical week of living and learning by a group of school youngsters at the Nature Center.

Miser Richmond, speaking for the Upper Cumberland Chapter at Cookeville, invited the Society to come to Cookeville for the 1968 meeting. The invitation was enthusiastically accepted.

At noon on Sunday birders gathered in the Patio Room for a final tally of species seen, with Ben Coffey keeping score. A total of 135 species was sighted. Thus ended another enjoyable meeting of TOS.

3021 Sullivan Road, Knoxville 37921.

OUR NEW PRESIDENT: ROBERT W. McGOWAN



Robert W. McGowan

The Tennessee Ornithological Society elected Robert W. McGowan as its new President at the annual meeting of the Society held 5, 6, and 7 May at Paris Landing State Park.

McGowan is a member of the Memphis Chapter and an Associate Professor of Biology at Memphis State University where he teaches General Ecology, Plant Taxonomy and Ornithology.

He was born 5 June, 1922 at Paris, Tennessee and is married to the former Ellen Fossey. The McGowans have two children and both are married.

He earned his B.A. at Lamburth College, Jackson, Tennessee and his M.A. from George Peabody College at Nashvillle. Two years were spent in advanced graduate work at the University of Missouri.

During the period 1943 to 1946 he served in the European Theater with the United States Army. McGowan joined the Department of Conservation as a Parks Naturalist from 1948 to 1949.

In 1949 he joined the faculty at Memphis State University and is presently a member of the Faculty Council.

He holds membership in the Tennessee Academy of Science, the Wilson Ornithological Society and the Tennessee Scenic Rivers Association.

McGowan has been the recipient of the R. E. Womack Alumni Achievement Award from Lambuth College in 1965 and Chairman of the Stream Pollution Control Committee of the Tennessee Scenic Rivers Association.

He has published various feature articles concerning natural history in *The Tennessee Conservationist, The Tennessee Teacher, Commercial Appeal* and *Memphis Press Scimitar.*

ROUND TABLE NOTES

RECENT RUFFED GROUSE ON LOOKOUT MOUNTAIN—On 10 October 1965 Roy Evenson, National Park Service ranger, stationed at Point Park, on Lookout Mountain brought to the author a live Ruffed Grouse *Bonasa umbellus* (Linnaeus) that had been given to him by a local resident. The person who captured the Grouse reported they were in the house, about 4:30 P.M., when their dog started barking and making a great deal of commotion outdoors. utside they found the bird huddled under a bush. They simply picked it up and placed it in a box, then notified Evenson. Their home is five blocks from the main gate to the park on East Brow Road. The immediate top of the mountain in this area is well covered with homes with large trees and some undergrowth in the spacious yards. The mountainsides in the vicinity are well forested and would be considered suitable grouse habitat, but none have ever been recorded there by Chattanooga Chapter members. The mountain has not been thoroughly covered to ascertain its resident bird life.

The finding of this bird in such a conspicuous location first prompted the writer to believe someone was playing a prank or maybe some hunters or game officials had released a number in an effort to restock the north end of the mountain. An effort was made to follow up these ideas, but the results were negative. The best explanation appears to be given by Arthur Cleveland Bent (1932, *Life Histories of North American Gallinaceous Birds.* U. S. Nat. Mus. Bull. 162, pp 158-159) where he quotes Audubon as saying in October the birds were known to make short flights from known areas across the Susquehanna and Ohio Rivers. As for the possible strange behaviour exhibited by this bird, Bent used the term "crazy season" to explain such erratic actions and presents several interesting incidents. For example, showing up in his yard in town, killing themselves by flying against buildings or through windows and one even being found in a neighbors house with no entrance other than the chimney.

An effort was made to ascertain where this bird may have originated, but brought rather meager results. The writer located one reference by Thomas D. Burleigh (1958, *Georgia Birds,* University of Oklahoma Press, Norman, p. 203) for the mountain on the Georgia side. To quote: "Hoxie, in 1923, recorded this species as rare at Cloudland, on Lookout Mountain . . .". As for present knowledge of this area we can't verify the statement one way or the other.

As far as the author's knowledge goes the closest resident population is located in the Prentice Cooper Wildlife Management Area on Walden's Ridge about eight miles north-northwest. In between Lookout Mountain and Walden's Ridge is the broad expanse of the Tennessee Valley and Elder (Racoon) Mountain. The habitat on Elder would appear suitable for Grouse so an effort was made for verification with Mr. J. Emmitt Lawson, now retired from the Tennessee Department of Forestry. Mr. Lawson worked regularly on the mountain during all seasons from 1949 to 1962, clearing trails, etc., and during fire season manning the tower. He was very adept at hawk watching in the tower and made complete notes while there. In a conversation he stated that to his knowledge the only grouse on the mountain were a group of five the latter part of October 1962, his last season before retiring. From the foot of Elder to the foot of Lookout is an area of scattered timber and residential area.

Vincent Schultz (1953, Status of the Ruffed Grouse in Tennessee, THE MIGRANT, 24: pp. 45-52) writing on the species only mentioned they were present on Walden's Ridge in Hamilton County.

KENNETH H. DUBKE, 3302 Navajo Drive, Chattanooga 37411.

WHIP-POOR-WILL FORAY—During the evening of 21 June 1967, six members of the Elizabethton Chapter TOS conducted a Whip-poor-will count across the north slope of South Holston Mountain in Carter and Sullivan Counties. The route covered began at the south shore of South Holston Lake and proceeded across South Holston Mountain *via* Flatwoods Road, a graveled Forest Service route, for 14.5 miles to a point near Keenburg in Carter County. This route is primarily through wooded, mountainous terrain with occasional open areas. The elevation of the route ranges from approximately 1700 to 2400 feet. Stops were made at half-mile intervals, as measured by the car speedometer, to count Whip-poor-will calls. A total of 45 Whip-poor-wills was recorded.

Weather conditions (generally overcast and windy with some rain) and the rather late date of this count probably account for the relatively small number of birds heard. As with previous trips, the count was timed so as to take advantage of the full moon since the birds seem to sing more readily during that period. The count covered a period of approximately two hours between 9:30 and 11:30 PM Eastern Daylight Time. Previous counts with the number of birds noted on each count in parenthesis are as follows: 24 April 1959 (56); 18 May 1962 (73); 13 May 1965 (69); 2 June 1966 (39). Each of these counts covered the same area described above and was conducted in the same manner.

MRS. HAROLD L. DILLENBECK, 1314 Seminole Drive, Johnson City 37601.

PURPLE GALLINULE IN EAST TENNESSEE—On the evening of 27 April 1967, I was attending the 17th Annual Spring Wildflower Pilgrimage with my wife and Jim and Nancy Campbell. While talking to Mr. Ross Bender, chief naturalist, Great Smoky Mountains National Park, we learned of the presence of a Purple Gallinule, *Porphyrula martinica,* in the city of Gatlinburg, Tennessee.

The next morning we went to the back yard of the Gatlinburg Motor Inn to see the bird for ourselves. We found it perched in the top of one of the ornamental shrubs. With the mountains in the background, this bird of the lily-pads looked very much out of place.

I talked to the inn's Negro chef and learned he had first seen the bird on 2 April, and that he had been feeding it bread crumbs and table scraps every day since. He said the gallinule never had ventured far from the boundaries of the yard and it spent most of the day walking over the shrubs or hiding under them.

The bird was seen daily until 5 May. On that date there was a severe thunder storm with heavy rains and strong winds. Since its passing the bird has not been sighted.

FRED J. ALSOP, III, Dept. of Zoology, University of Tennessee, Knoxville 37916.

EARLY NESTING OF MOURNING DOVE—On the afternoon of 28 March 1966, Charles Smith and the writer were taking a routine field trip on the grounds of the Veterans' Administration in Johnson City, Tennessee. An area near the Administration Building was being checked when a nest was noted in a Red Cedar, *Juniperus virginiana.* It was found to be a nest of the Mourning Dove, *Zenaidura macroura,* containing one egg and one young bird.

The next was approximately twelve feet out from the tree trunk and thirteen feet above the ground on a horizontal limb.

The young bird had already acquired juvenal plumage, with white edging on the feathers of the nape, back, rump, throat, and breast and black patches on the wing coverts. Some pin feathers were still evident and the bases of the primaries were still enclosed in feather sheaths. No development of the central tail feather was noted; however, the nestling was capable of short flights. Judging from the size of the nestling, it was assumed that the egg which remained in the nest would probably not hatch. On 31 March, the nest was again checked, but the young bird could not be found in the area. The remaining egg had been broken open and was rotten.

According to Bent (*Life Histories of North American Gallinaceous Birds,* 1932), the incubation period of the Mourning Dove is fifteen days, and the young remain in the nest approximately fifteen days after hatching. This means that there is a period of about thirty days between the time the egg is laid and the time that the young leave the nest. This particular bird was last observed in the nest at about 5:30 PM on 29 March, at which time it appeared capable of leaving the nest. Allowing approximately thirty days for the egg to hatch and the bird to develop its juvenal plumage and leave the nest, the egg would have to have been laid on or about 28 February 1966. As far as is presently known, this is the earliest nesting record of the Mourning Dove for the Johnson City area.

WILLIAM A. BRIDGFORTH, JR., 501 Laurel Avenue, Johnson City 37601.

GREATER SCAUP WINTER ON CHICKAMAUGA LAKE—There are several species of birds that present problems for field identification, consequently their local distribution has yet to be worked out. This past winter Jon DeVore and I were in an advantageous position to record observations on a wintering raft of around seventy Greater Scaup, *Aythya marila,* until they apparently migrated north or were replaced by others from farther south.

I was not present to consistently record observations on Chickamauga Lake until 18 November 1966. However, 13 November was the first date DeVore identified scaup on the lake. From November till 17 April 1967, I made twenty-four trips alone, or sometimes accompanied by DeVore or Roy Evenson. In addition DeVore made twenty-two trips on his own.

On the morning of 25 December I recorded fifty-five Greater Scaup as they leisurely floated and preemed their feathers 300 yards off the point at Booker T. Washington State Park. Conditions were ideal to view through the 35X scope: one could look down on the calm water from a vantage point of a fifteen foot enbankment and with the sky nearly clear and the sun rising to the rear. This area is nearly a mile across. Another advantage was the navagational channel for barges is located on the distant side, thus not unduly disturbing the resting waterfowl. When viewed the birds seldom moved allowing ample opportunity to study head contour and gloss, but the most diagnostic mark was the amount of white conspicuously revealed in the primaries when they flexed their wings. As the season progressed the males acquired the more white flank feathers in comparison with the more heavily barred flanks of the Lesser Scaup, *Aythya affinis*. With conditions favorable to carry out consistent observations an effort was made to check early in the morning on clear days. The 60X eyepiece was also engaged. We could usually count on finding the raft in its accustomed location or not far away. The greatest number identified was 104 on 28 February.

A very interesting point to note in checking from Chickamauga Dam to Harrison Bay State Park was the fact that we very rarely encountered Lesser Scaup. My records do show one raft of 81 Lesser Scaup and no Greater Scaup on 2 January. I'm now inclined to believe it's an error. The accustomed policy of the past has been to call distant scaup the Lesser Scaup because "they're the ones that should be here." From now on they will be just identified as scaup.

Our records reveal the raft could not consistently be found in their regular location after the end of February. In March the two species could sometimes be separated, but usually not over the vast expanse of water. DeVore and the Roger Swanson party recorded the last positive identification of Greater Scaup for the Spring Count 30 April.

The few other Chattanooga area records fit into the above pattern.

KENNETH DUBKE, 3302 Navajo Drive, Chattanooga 37411.

SPRING MORTALITY OF BLACK-POLL WARBLERS AT A NASHVILLE T. V. TOWER—On the morning of 14 and 15 May 1967, at WSM T. V. tower, 160 birds of 12 species were gathered. Of this number, 115 (72 per cent) were Black-poll Warblers, *Dendroica striata,* an equal ratio of males and females. On 16 May, another was found; 21 May 3. The condition of two of the latter, indicated that they had fallen on an earlier date.

In previous years at the towers, there have been only minor casualty lists at Nashville—two Black-polls at WSM on 26 April 1966 and 8 for WSIX from 8 through 17 May 1965. The autumn kill for the species has been low—10 for both towers in 8 years (1959-1966).

The casualties for spring 1967 occurred during a period of inclement weather with heavy overcast, precipitation and head winds from the north.

A. C. Bent (*Life Histories of North American Wood Warblers* Bull. 203: 404, 1953) states: "The habit of migrating at night is indirectly a cause of great mortality when waves of this species (Black-poll Warblers) encounter light houses and lighted towers. Often very serious conditions prevail during cloudy or foggy nights when the birds, losing their bearings and attracted by the bright light, descend from their high-level flight and are dashed to death on striking some part of the illuminated tower." He quotes some reports of casualties, including one for September 1887 when 595 birds were killed at Fire Island Light, Long Island and 356 (60 percent) were Black-polls.

The grand total of 173 for spring 1967 at WSM T. V. tower follows: 14 and 15 May—Red-eyed Vireo 3-1, Philadelphia Vireo 1-1, Black-and-white Warbler 1-1, Tennessee Warbler 5-3, Magnolia Warbler 1-0, Cape May Warbler 0-3, Bay-breasted Warbler 5-8, Black-poll Warbler 60-55, Ovenbird 0-1, Connecticut Warbler 0-2, Yellowthroat 2-0, Indigo Bunting 0-1, unidentifiable account condition 1-5. On 16 May Black-poll Warbler 1; on 21 May Black-billed Cuckoo 1, Red-eyed Vireo 2, Tennessee Warbler 1, Black-poll Warbler 1 plus 2 old, Indigo Bunting 1, unidentifiable 4.

Acknowledgment is made to the personnel of WSM for alerting us to the bird falls and to A. F. Ganier and Katherine A. Goodpasture for their part in collecting.

AMELIA R. LASKEY, 1521 Graybar Lane, Nashville 37215.

THE PRESIDENT'S MESSAGE

Needless to say, I am highly honored to be selected as the new President of the Tennessee Ornithological Society.

At the time of this writing, it has become necessary for me to make a few decisions. There will be others, and I am aware that although some of them might turn out to be good ones, others will be less good; and too, I am mindful of the Transcendentalist poet who "reserved the right to change his mind tomorrow." In keeping with this spirit then, I can only report to you as of any particular writing, and hope for the courage to report mistakes, too, as they occur.

Most of our members are not unaware that opinions differ regarding the role of a membership committee within our organization. Frankly, I am not certain of the answer. However, I do believe that there are individuals who could contribute greatly to our organization and who could grow as future resource people through participation in our organization, but who are not sufficiently aware of the existence and activities of the T.O.S. Also, it is my belief that every member should assume the responsibility of an enthusiastic supporter of our organization, keeping eyes and ears open for those who, through association with the society, could contribute to the educational, conservation, and scientific activities of the T.O.S., and who could, themselves, benefit from active participation. Generally speaking, however, our species seems to function more efficiently with some machinery of organization behind them. Therefore, I am asking that the vice-presidents of each division of the state serve on a membership committee. I shall very shortly appoint a chairman for this committee and will make known the name of the chairman to each chapter.

Another matter which requires attention at this time is THE MIGRANT. We are, and should be, proud of our publication. Each of us should be aware of the tremendous energy, time, and expense which is involved in its quarterly creation. To remain a first class publication and to increase its future effectiveness as a voice of our organization, let each of us do what we can to contribute. The editors need material, articles and reports, from members who are involved in the many facets of observation and study of birds. Too many of us are, perhaps, too modest in the appraisal of our own abilities and hesitate to send in to an editor our efforts in reporting or writing an article. Give it a try. The editors welcome it and will help you get any suitable material into shape. And, too, why be ashamed of a rejection slip. A rejection slip reflects a considerable amount of courage and a certain degree of success.

Since the mechanics of publication of THE MIGRANT are time consuming and expensive, and, since the constitution states that, "It shall be the duty of the Editor to secure and prepare, with the aid of the editorial staff, suitable material for publication in our Quarterly, THE MIGRANT, and to arrange for the printing and mailing of same," I am asking the Treasurer to make available to the editorial staff sufficient funds to cover the costs of secretarial help in addressing, stuffing, sorting, and packaging the publication. One hundred dollars should be made available immediately and included in the budget, with executive board approval. Each of us should not fail to give a word of thanks to our editorial staff for their sacrifice (and I do not use that word lightly) of time and energy in preparing THE MIGRANT for publication.

We are living in exciting times in an exciting world. At the same time it is depressing because of the destruction of our natural world around us. It has been going on for a long time, but now, since we are aware of it, it becomes poignantly depressing. None of us wish to be a part of the television and magazine caricature of the timid, ineffectual bird watcher; instead, I choose to think of ourselves as ornithologists in the spirit of Alexander Wilson or John Muir. Therefore, let's stand up and howl when we see the destruction or misuse of our beautiful America, and let's do it with a voice that will not be silenced, nor denied. If we fail to do so, there will not be a place for the existence of any ornithological society—except, perhaps, to study the behavior of captive birds in a zoo or ten cent store or on private and commercial hunting grounds.

I hope this term of office will be a good one for the T.O.S. I'm positive that I speak for all the officers whom you have elected when I say that we shall try, but we can't do it without the help of each member. We solicit your help and thoughtful suggestions.

Sincerely,

Robert W. McGowan

(Continued from Page 29—"Red-winged Blackbirds")

SUMMARY

This paper has dealt with a study of the nesting and territorial habits of the Red-winged Blackbird in a limited area of typical habitat. Intensive observations were made during April, May, and June, 1967, and patterns of behavior were noted and recorded. Aspects of polygamy, territorialism, and care of young were of primary consideration in this paper. Nesting success was also briefly considered, and some aspects of behavior which might warrant further study were proposed.

Route 2, Johnson City 37601.

THE SEASON

CHARLES R. SMITH, *Editor*

Reports for this period include data from 1 March through 31 May, inclusive. The spring season was considered rather unusual by most reporters. March brought indications of an early spring with generally warm, dry weather across the state. However, unusual periods of cool damp weather in April and May made the arrival of spring uncertain. March and April were rather dry in most areas with May being quite damp. These unusual weather conditions may account for the fact that the spring migration was often described as "slow" with no noticeable migration waves or spectacular numbers of species noted.

Records of northern finches were again few and far between. Purple Finches were reported from Nashville, Chattanooga, Greeneville, Bristol, and Elizabethton. Pine Siskins were noted only in Nashville and Chattanooga. Also, gulls were scarce or absent in most reports, and migrant thrushes (Swainson's and Gray-cheeked) were very uncommon. Among some of the more unusual observations were Cattle Egret at Reelfoot, Olive-sided Flycatcher at Savannah, Willet, Laughing Gull, and Brewster's Warbler at Nashville, and White-winged Scoter at Chattanooga. We are also pleased to welcome the Reelfoot area to our group of correspondents for this period. Of unusual interest was the occurrence of a European Widgeon on South Holston Lake in Virginia, within one mile of the Tennessee-Virginia State Line.

REELFOOT—*Grebes-Mergansers:* Pied-billed Grebe: 19, 30 Mar. (1) RL. Double-crested Cormorant: 29 Apr. (1) RL (EC, MLC). Great Blue Heron: nesting RL (EC). Little Blue Heron: nesting RL (EC). Common Egret: nesting RL (EC). Cattle Egret: 19 Apr. (10) T (HL, WL, BS), 24 Apr. (2) T (HL, MS), 30 Apr. (2) T (EC, MLC). American Bittern: 13 May (1) RL (EC). Least Bittern: 29 Apr. (1) RL (SC). Yellow-crowned Night Heron: 27 Apr. (1) RL (EC). Canada Goose: 4 Mar. (15,000) RL (REF), 12 May (6) RL (JD). Snow Goose: 4 Mar. (15) RL (REF). Blue Goose: 4 Mar. (45) RL (REF), last 15 May (1). Mallard: 4 Mar. (5,200) RL (REF). Black Duck: 4 Mar. (20) RL (REF). Gadwall: 11 Mar. (2,000) RF (REF). Green-winged Teal: 11 Mar. (15) RL (REF). Blue-winged Teal: 25 Mar. (1750) RL (REF). American Widgeon: 25 Mar. (775) RL (REF). Pintail: 4 Mar. (150) RL (REF). Wood Duck: 4 Mar. (1,300) RL (REF). Shoveler: 25 Mar. (400) RL (REF), 29 Apr. (1) RL (EC, MLC). Redhead: 4 Mar. (15) RL (REF). Ring-necked Duck: 4 Mar. (2,800) RL (REF), 2 May (2) RL (HD). Lesser Scaup: 25 Mar. (375) RL (REF), 13 May (20) RL (EC). Common Goldeneye: 4 Mar. (20) RL (REF). Bufflehead: 25 Mar. (15) RL (REF). Ruddy Duck: 25 Mar. (65) RL (REF). Hooded Merganser: 4 Mar. (10) RL (REF). Common Merganser: 4 Mar. (5) RL (REF). Red-breasted Merganser: 31 May (1) RL (WL).

Hawks-Sandpipers: Broad-winged Hawk: 8 Apr. (1). Bald Eagle: 19 Mar. (1) RL (MLC, BS). Marsh Hawk: 19 Mar. (1). Osprey: 30 Apr. (1). Sora: 29 Apr. (1). Common Gallinule: 13 May (1) RL (EC). American Coot: 25 Mar. (9,700) RL (REF). Wild Turkey: 29 Apr. (2) (LC). American Golden Plover: 19 Apr. (30) T (HL, WL, BS). Black-bellied Plover: 29 Apr. (2) (BC). Semipalmated Plover: 29 Apr. (10) (SC). Upland Plover: 2 May (1). Spotted Sandpiper: 29 Apr. (2). Solitary Sandpiper: 29 Apr. (28). Greater Yellowlegs: 29 Apr. (27) RL (SC). Lesser Yellowlegs: 29 Apr. (175) RL

(SC). Pectoral Sandpiper: 29 Apr. (210) RL (SC). Short-billed Dowitcher: 29 Apr. (4) RL (BC).

Terns-Sparrows: Forster's Tern: 13 May (2). Common Tern: 13 May (1). Least Tern 16 May (5) TF (EC, MLC). Yellow-billed Cuckoo: 29 Mar. (2) (MLC). Barred Owl: 29 May (1). Chuck-will's-widow: 14 May (1). Nighthawk: 16 May (1). Chimney Swift: 30 Mar. (1). Ruby-throated Hummingbird: 30 Mar. (1). Bank Swallow: 29 May (2). Blue-gray Gnatcatcher: 30 Mar. (1). Yellow-throated Vireo: 1 Apr. (1). Yellow-throated Warbler: A Apr. (1). White-crowned Sparrow: 29 Apr. (1) TF.

Locations: RL—Reelfoot Lake, T—Tiptonville, TF—Tiptonville Ferry.

Observers: BC—Ben Coffey, EC—Eugene Cypert, LC—Lula Coffey, MLC—Mary Lou Cypert, SC—all parties on Spring Count, HD—Harvell Denton, JD—John DeLime, REF—Reelfoot Refuge census figures, HL—Helen Lindamood, WL—William Lindamood, BS—Betty Sumara, MS—Melita Smith.

EUGENE CYPERT, 813 Foster Street, Tiptonville 38079.

SAVANNAH—*Bitterns-Vireos:* American Bittern: 18 Apr. (2) B to 15 May (1) SH. Red-breasted Merganser: 22 May (1) P. Marsh Hawk: 13 May (1) H. Osprey: 11 Mar. (1) P. Dunlin: 22 May (2) P. Chuck-will's-widow: 11 Apr. (1) H. Olive-sided Flycatcher: 11 May (1) H and 17 May (1) SH. Cliff Swallow: 15 Apr. (50) nests under construction P. Short-billed Marsh Wren: 2 May (2) SH. Grey-cheeked Thrush: last 24 May (1) H. Veery: our only record 30 Apr. (1) S. Ruby-crowned Kinglet: last 10 May (1) I. White-eyed Vireo: 1 Apr. (2) H. Solitary Vireo: 13 May (1) H.

Warblers-Sparrows: Black-and-white Warbler: 25 Mar. (2) H. Golden-winged Warbler: 11 May (2) H. Blue-winged Warbler: 1 Apr. (2) H. Cape May Warbler: 12 and 16 May (2) H. Black-burnian Warbler: 11 Apr. (1) H. Yellow-throated Warbler: 24 Mar. (1) I. Bay-breasted Warbler: last 21 May (1) H. Blackpoll Warbler: last 24 May (2) H. Yellow-breasted Chat: 14 Apr. (1) H. Bobolink: 20 May (110) O. Orchard Oriole: 14 Apr. (1) H. Scarlet Tanager: 8 Apr. (1), 11 Apr. (2) H. Blue Grosbeak: 18 April (1) SH. Savannah Sparrow: last 9 May (1) SH. Lincoln's Sparrow: 4 May to 23 May (2) SH.

Locations: B—Bruton Branch, H—Harbert Hills Academy, I—Indian Creek, O—Olive Hill, P—Pickwick Dam and Lake, S—Savannah, SH—Sutton Hollow.

Observers: Freshman Biology Class.

DAVID E. PATTERSON, Harbert Hills Academy, Olive Hill 38475.

NASHVILLE—*Grebes-Ducks:* Horned Grebe: 8-31 May (1), 30 May and 1 June (2), BL (HEP), 10 days latest ever. Pied-billed Grebe: last 12 May (1) BL (HEP). Great Blue Heron: almost absent. Green Heron: 7 Apr. (1) SHV (LOT). Little Blue Heron: 23 May (1) RL (MCW). Common Egret: 22 Apr. (2) ACM (AFG), first in two years. Black-crowned Night Heron: 27 Mar. (60) pairs on nest BH (MB). Canada Goose: 7-29 Mar. (1) BL (HEP), 17 Mar. (1) RL (MCW). Mallard: very scarce and left early. Black Duck: last 17 Mar. (30) BL (MCW). Gadwell: one report, 21 Mar. (4) BL (MCW). Blue-winged Teal: 8 Mar. (2), a peak of (18) 18 Apr., last (1) 15 May, all BL (HEP). American Widgeon: a pake of (12) 13 Mar. to

(1) 18 April BL (HEP). Shoveler: a peak of (22) 20 March to (4) on 12 May, then (1) 17 May. Wood Duck: 16 Mar. (8) RL, then 3 sets young late May RL (MCW), also young 2 J's, normal elsewhere. Redhead: 4 Mar. (1) CL (HEP), 17 Mar. (2) BL (MCW, EE). Ring-necked Duck: still scarce, left mid-Mar. Canvasback: scarce in Mar., last (2) 17 Mar. BL (MCW, EE). Lesser Scaup: from (600) 11 Mar. to (4) 25 May BL (HEP). Common Goldeneye: peak 13 Mar. (34) RL (MCW), last 27 Mar. (2) RL (MB). Bufflehead: a few during Mar., last 4 Apr. (1) BL (HEP). Oldsquaw: (1) (THE MIGRANT 38:18) seen occasionally until 4 May, BL (HEP). Ruddy Duck: fairly regular at BL with a peak of (11) 29 Mar. to (1) 16 May, 7 days latest ever (HEP). Hooded Merganser: 15 May (1) BL (HEP).

Hawks-Terns: Broad-winged Hawk: 5 Apr. (3) RL (SB). Marsh Hawk: 22 Apr. (1) (TOS) only report. Osprey: 22 Apr. (8) (TOS), may be the largest day's count here. Bobwhite: 22 Apr. (96) (TOS), shows them increasing. Sora: 22 Apr. (1) ACM (AFG). American Coot: common and late leaving with (25) 31 May BL (HEP). Semi-palmated Plover: 22 Apr. (2) ACM (AFG), first in two years. American Woodcock: 4 Mar. (1) OHL (HCM, LOT), 28-29 Mar. (1) BS (KAG), 27 May (3) 2 J's (MB). Common Snipe: 22 Apr. (12) (TOS), only report. Spotted Sandpiper: 14 Apr. (3) to 12 May (3), both BL (HEP). Solitary Sandpiper: 10 Apr. (1) near PWP (LOT), was the first, fairly scarce. Willet: 22 Apr. (1) near dam OHL (CK, SG), fourth area record. Greater Yellowlegs: 18 Mar. (3) RR (SB). Lesser Yellowlegs: 22 Apr. (3) RR (TOS). Pectoral Sandpiper: only one report, (1) ACM 22 Apr. (AFG). Semipalmated Sandpiper: 3 May (6) BL (HEP), 14 May (1) SHV (KAG), only reports. Ring-billed Gull: 22 Apr. only (3) reported OHL, none later. Laughing Gull: 1 May (1) BL (HEP), second area record. Bonaparte's Gull: last 29 Mar. (2) ACM (HCM, MB). Common Tern: 1 May (1) BL (HEP), first in 3 years. Black Tern: 12 May (8), 15 May (5), both BL (HEP), and 15 May (3) RL (MCW). Yellow-billed Cuckoo: 22 Apr. (8) (TOS).

Goatsuckers-Swallows: Whip-poor-will: 25 Mar. (1) (FM). Common Nighthawk: 13 Apr. (2) (AC). Chimney Swift: 27 Mar. (1) (ARL). Ruby-throated Hummingbird: 7 Apr. (1) (JC). Yellow-bellied Sapsucker: 23 Apr. (1) CP (HCM). Eastern Kingbird: 18 Apr. (3) PPD (SB), 22 Apr. (38) (TOS). Great Crested Flycatcher: 12 Apr. (1) OCR (SB). Acadian Flycatcher: late, no reports until 4 May (1) (HCM). Wood Pewee: 29 Apr. (1) CP (HCM). Tree Swallow: 28 Mar. (1) BL (HEP). Bank Swallow: 28 Apr. (25), a peak of (500) 8 May, last 15 May (100) BL (HEP). Rough-winged Swallow: 29 Mar. (3) RR (HCM, MB). Barn Swallow: 24 Mar. (1) BL (HEP), then very scarce until early May when their numbers became normal. Cliff Swallows: 5 May nesting RR (KAG). Purple Martin: 3 Mar. (1) (MLL), scarce during the period with no nests at BL and only (1) seen during migration there. House Wren: 13 Apr. (1) in song, 21 Apr. building nest (JHH). Winter Wren: left early, last 9 Apr. (1) BS (KAG). Catbird: first 15 Apr. (1) (KAG). Robin: below normal, apparently no migration passed through. Wood Thrush: 12 Apr. (1) (SB, HCM), seems to get scarcer here each year. Hermit Thrush: last 13 April (1) (HCM). Swainson's Thrush: 21 Apr. (1) 2 J's (KAG) to 25 May (1) (SB, KAG), far below normal numbers. Gray-checked Thrush: 2 May (1) 2 J's (KAG), only report. Veery: 8 May (1) MCW, 25 May (1) (SB). Eastern Bluebird: 22 Apr. (38) (TOS), it seems their numbers are slowly climbing here. Blue-gray Gnatcatcher: 24 Mar. (1)

BS (KAG), 6 Apr. pair building nest PWP (LOT). Golden-crowned Kinglet: last 1 Apr. (1) (KAG). Ruby-crowned Kinglet: 16 Apr. (2) BS (KAG). Water Pipit: 11 Mar. (80) BL (HEP), 25 Mar. small flock EWP (LOT). Cedar Waxwings: fairly scarce with last 25 May (5) CP (HCM). White-eyed Vireo: first 1 Apr. (2) BS (MB). Yellow-throated Vireo: 1 Apr. (2) BS (MB). Solitary Vireo: 6 records between 2-13 May CP (HCM). Red-eyed Vireo: 4 Apr. (1) (SB). Warbling Vireo: 15 Apr. (1) SHV (KAG).

Warblers: Black-and-white: 1 Apr. (3) BS (KAG, MB). Prothonotary: 5 Apr. (2) RL (SB), 22 Apr. (41) (TOS). Worm-eating: 14 Apr. (1) PWP (ARL). Blue-winged: 1 Apr. (1) BS (KAG). Brewster's (hybrid): 22 Apr. (1) SHV (AC, MD). Tennessee: scarce and late with 8 May (1) (HCM). Orange-crowned: 14 Apr. (1) (HCM). Nashville: 22 Apr. (1) RL (MCW) to 2 May (1) CP (HCM). Parula: 7 Apr. (1) BS (KAG). Yellow: 9 Apr. (1) (ARL). Magnolia: 22 Apr. (1) RL (MCW) to 21 May (1) BS (KAG). Myrtle: scarce until 22 Apr. (43) (TOS), last 16 May (1) CP (HCM). Black-throated Green: 1 Apr. (1) (HCM) to 24 April (1) RL (MCW), very scarce in between. Cerulean: 9 Apr. (3) 2 J's (HCM). Blackburnian: 22 Apr. (1) (TOS), 24 Apr. (1) (HCM). Yellow-throated: 25 Mar. (4) 2 J's (MB). Chestnut-sided: 16 Apr. (1) (ARL). Bay-breasted: 22 Apr. (3) (AV) and (1) (MCW), to 13 May (1) (HCM). Blackpoll: 12 Apr. (2) RL (MCW, EE, to 22 May (1) CP (HCM). Pine: 16 Apr. (1) PWP (LOT). Prairie: 6 Apr. (2) PWP (LOT). Palm: 15 Apr. (1) (HCM), far scarcer than usual. Ovenbird: 16 Apr. (1) BS (KAG). Northern Waterthrush: 1 Apr. (1) PWP (LOT). Louisiana Waterthrush: 12 Mar. (1) BS (KAG). Kentucky: 15 Apr. (1) BS (KAG). Yellowthroat: 14 Apr. (1) (HCM). Yellow-breasted Chat: 16 Apr. (3) PWP (LOT), and (1) BS (KAG). Hooded: 10 Apr. (1) (HCM). Redstart: 1 Apr. (1) BS (MB), 10 days earliest ever.

Bobolink-Sparrows: Bobolink: very late with (200) 16 May (MCW, EE) and (75) 21 May (KAG), both SHV. Orchard Oriole: 6 Apr. (1) (HH). Baltimore Oriole: scarce, with first 15 April (1) (KAG). Common Grackle: abundant everywhere. Brown-headed Cowbird: common, with (1,275) 19 Mar. HRV (HCM, HEP). Scarlet Tanager: scarce, 15 Apr. (1) BS (KAG). Summer Tanager: 12 Apr. (1) PWP (MCW, EE). Rose-breasted Grosbeak: almost absent with (4) 22 Apr. (TOS) and 12 May (2) (HCM). Blue Grosbeak: 30 Apr. (1) 2 J's (HCM), 4 May (1) EWP (AV), and 14 May (1) SHV (KAG). Indigo Bunting: 15 Apr. (2) SHV (KAG). Dickcissel: late, first (1) SHV (HCM, HEP). Purple Finch: 22 Apr. (4) (FM), last seen. Pine Siskin: 18 Mar. (1) (SB), only record for season. Grasshopper Sparrow: 22 Apr. (1) (KAG, MCW). Vesper Sparrow: 2 May (1) (LOT). Slate-colored Junco: left early, last 22 Apr. (1) (CK). Chipping Sparrow: 7 Mar. (1) (JC). White-crowned Sparrow: 19 Mar. (18) HRV (HCM, HEP), last 23 May (1) (HH). White-throated Sparrow: scarce and most left early, last 2 May (3) (HCM). Fox Sparrow: last 21 Mar. (1) (HCM). Lincoln's Sparrow: 20 Apr. (1) SHV (KAG). Swamp Sparrow: left early, last 22 Apr. (2) ACM (AFG). Song Sparrow: 25 Mar. (1) CP (HCM).

Locations: ACM—Ashland City Marsh, BS—Basin Springs, BH—Bordeaux Heorny, BL—Bush Lake, CP—Centennial Park, CL—Colman's Lake, EWP—Edwin Warner Park, HRV—lower Harpeth River Valley, OCR—Otter Creek Road, OHL—Old Hickory Lake, PPD—Percy Priest Dam, PWP—Percy

Warner Park, RL—Radnor Lake, RR—River Road, SHV—South Harpeth Valley, 2 J's—Two Jays Sanctuary.

Observers: SB—Sue Bell, MB—Mike Bierly, JC—Mrs. Jack Clark, AC—Annella Creech, MD—Milbrey Dugger, EE—Erline Elmore, AFG—Albert F. Ganier, KAG—Katherine A. Goodpasture, SG—Steve Greenfield, JHH—Mrs. J. H. Hite, HH—Helen Hodgson, CK—Carol Knouth, ARL—Amelia R. Laskey, MLL—Mary Lou Lorance, HCM—Harry C. Monk, FM—Fanny Murphy, HEP—Henry E. Parmer, TOS—Nashville Chapter Count, LOT—Lawrence O. Trabue, AV—Alvin Vincent, MCW—Mary C. Wood.

HENRY E. PARMER, 3800 Richland Ave., Nashville 37205.

CHATTANOOGA—*Loons-Ducks:* Common Loon: last 9 May (1) TRG (KD, RE). Horned Grebe: last 7 Mar. (2) CL (KD). Pied-billed Grebe: last 30 Apr. (TOS), max. 10 Apr. (25) CL (KD). Great Blue Heron: last 30 Apr. (TOS). Green Heron: first 18 Apr. (2) HIA (KD). Little Blue Heron: first 10 Apr. (2) SB (KD), last 15 May (2) MB (KD), plus three other records. Cattle Egret: 12 May (7), 13 May (4) (both JD), 15 May (1) (JD, KD) and 16 May (1) all at AM (KD). Common Egret: 10 Apr. (2) MP (KD), 30 Apr. (TOS). Louisiana Heron: 8 May (1) AM (KD, AW, and others). Yellow-crowned Night Heron: first 30 Apr. (TOS). Least Bittern: first 10 Apr. (1) AM (KD). American Bittern: first 27 Mar. (1) MP (KD), then regular to end of period. Canada Goose: last 30 Apr. (TOS). Mallard: max. 21 Mar. (13) CL (KD). Black Duck: last 30 Apr. (TOS), max. 1 Mar. (65) CL (KD). Gadwall: last 30 Apr. (TOS), max. 7 Mar. (72) CL (KD). Pintail: only on 23 Mar. (2) CL (JD). Green-winged Teal: last and max. 25 Mar. (13) CL (JD). Blue-winged Teal: last 15 May (6) AM (KD), max. 10 Apr. (51) CL, AM (KD). American Widgeon: last 30 Apr. (TOS), max. 21 Mar. (80) CL, AM (KD). Shoveler: last 22 May (1) AM (KD), max. 21 Mar. (26) CL, AM (JD, KD, RE). Ring-necked Duck: last 27 Mar. (1) CL (KD), max. 21 Mar. (35) CL (JD, KD, RE). Canvasback: only on 6, 7 Mar. (1) CL (KD). Scaup: last 2 May (40), max. 10 Apr. (1,195) CL (KD). Common Goldeneye: last 25 Mar. (2) CL (JD). Bufflehead: last 27 Mar. (5) CL (KD). White-winged Scoter: regular to 25 Mar. (2) WB (JD). Ruddy Duck: 25 Mar. (35) CL (KD), 27 Mar. (6) CL (KD, RE), 30 Apr. (TOS). Hooded Merganser: last 9 May (1) TRG (KD, RE). Red-breasted Merganser: sporadic to 27 May (2) CL (JD).

Hawks-Owls: Broad-winged Hawk: first 1 Mar. (1) WB (JD). Eagle: an unidentified brown eagle chasing an Osprey 24 Apr. TRG (KD, RE). Marsh Hawk: last 9 May (1) CB (FW). Osprey: U.S. Coast Guard personnel reported to the compiler that the pair were at the Watts Bar Lake nest on 24 Mar. King Rail: first 3 Apr. (2) AM (KD), max. 26 Apr. (6) AM (KD). Virginia Rail: 26 Apr. (1) AM (KD). Sora: first 10 Apr. (1) AM (KD), last 22 May (2) AM (KD), unusually abundant at AM with max, count there 28 Apr. (13) (AW). Purple Gallinule: 8 May (1) AM (KD). American Coot: regular to end of period. Semipalmated Plover: first 2 May (2) AM (KD), last 15 May (10) AM (KD), two additional records. American Golden Plover: 14 Mar. (1) SB (KD). Black-bellied Plover: 15 May (3) AM (KD). Common Snipe: last 22 May (1) AM (KD), max. 27 Mar. (178) AM (KD). Spotted Sandpiper: first 17 Apr. (2) SB (KD), then regular to 23 May (2) MB (KD). Solitary Sandpiper: first 21 Mar. (1) AM (KD), then regular to 15 May (7) AM, MB (KD), max. 10 Apr. (9). Greater Yellowlegs: first 4

Mar. (1) SB (KD), last 8 Moy (1) (KD), max. 17, 26 Apr. (16). Lesser Yellowlegs: first 21 Mar. (1) AM (KD), last 8 May (4) MB (KD), max. 18 Apr. (8). Pectoral Sandpiper: first 6 Mar. (2) SB (KD), last 17 Apr. (10) SB (KD), max. 12 Apr. (29) SB (KD). Least Sandpiper: last and max. 15 May (47) AM, MB (KD). Semipalmated Sandpiper: 2 May (2) AM (KD), 15 May (1) MB (KD). Herring Gull: last 27 Apr. (1) CL (KD, RE), max. 6, 21 Mar. (6) CL (KD). Ring-billed Gull: last 15 May (1) AM (KD), max. 6 Mar. (86) CL (KD). Bonaparte's Gull: 27 Mar. (1), 10 Apr. (3), 18 Ajr. (5) all CL (KD). Black Tern: 2 May (1) CL (KD, RE). Yellow-billed Cuckoo: first 20 Apr. (1) C (RS). Black-billed Cuckoo: first 24 Apr. (1) TRG (KD), last 6 May (1) CB (KD), with two additional records. Barn Owl: 22 May (1) AM, observed dead, caught in barn "couple" days earlier (KD); 23 May (2), appeared freshly killed on I-24 foot of Lookout Mt. (JD).

Goatsuckers-Swallows: Chuck-will's-widow: first 30 Apr. (TOS). Whip-poor-will: first 18 Apr. (1) C (RS). Common Nighthawk: first 22 Apr. (2) downtown Chattanooga (KD). Chimney Swift: first 31 Mar. (1) C (RS). Ruby-throated Hummingbird: first 16 Apr. (1) R (AW). Yellow-bellied Sapsucker: last 30 Apr. (TOS). Eastern Kingbird: first 8 Apr. (1) C (RS). Great Crested Flycatcher: first 15 Apr. (1) C (RS). Acadian Flycatcher: first 22 Apr. (1) R (AW). Least Flycatcher: 30 Apr. (1) (AW). Eastern Wood Pewee: first 16 Apr. C (RS). Tree Swallow: first 7 Mar. (1) AM (KD), max. 27 Apr. (50) SB (KD); last 30 Apr. (TOS). Bank Swallow: first 26 Apr. (1) AM (KD), max. 8 May (15) AM (KD), last 9 May (1) GP (KD). Rough-winged Swallow: first 21 Mar. (1 SB (KD). Cliff Swallow: first 5 Apr. (1) (AW). Purple Martin: first 8 Mar. (1) C (RS). Red-breasted Nuthatch: 24 Mar. (7) BWP (JD), 30 Apr. (six birds by three parties on TOS Count), last 13 May (1) C (RS). Brown Creeper: last 25 Apr. (1) C (RS). House Wren: 17 Apr. (1) MP (KD), 25 Apr. (1) R (AW), 1 May (1) TRG (KD), 18 May (2 (KD). Winter Wren: last 30 Apr. (1) AM (JD on TOS Count). Short-billed Marsh Wren: 12, 18 Mar. (1) MP (TLR), 15 May (3) MB (KD). Long-billed Marsh Wren: 22 May (1) AM (KD), 23 May (2) MB (KD, RE). Catbird: first 20 Mar. (1) C (RS). Wood Thrush: first 8 Apr. (1) C (RS). Hermit Thrush: last 30 Apr. C (RS on TOS Count). Swainson's Thrush: 22 Apr. (1) R (AW), 30 Apr. (TOS). Blue-gray Gnatcatcher: first 27 Mar. (1) C (RS). Golden-crowned Kinglet: last 14 Apr. (1) C (RS), 13 Mar. (12) TRG (KD). Ruby-crowned Kinglet: last 9 May (1) C (RS). Water Pipit: last 7 May (1) MB (KD), max. 6 Mar. (80) SB (KD). Cedar Waxwing: last 29 May (9) PP (KD), flocks usually under 25.

Vireos-Sparrows: White-eyed Vireo: first 2 Apr. (1) C (RS). Yellow-throated Vireo: first 4 Apr. (1) TRG (KD). Red-eyed Vireo: first 15 Apr. (1) CB (KD). Warbling Vireo: 23 Apr. (1) C (RS). Black-and-white Warbler: first 28 Mar. (2) SD (KD). Prothonotary Warbler: first 3 Apr. (1) MP (KD). Worm-eating Warbler: 10 Apr. (1) C (RS). Golden-winged Warbler: 24 Apr. (1) RR (KD), 29 Apr. (1) CB (KD). Blue-winged Warbler: first 9 Apr. (1) CB (KD). Tennessee Warbler: first 24 Apr. (1) RR (KD), last 16 May (1) (KD), max. 9 May (6) (KD). Orange-crowned Warbler: 30 Apr. (2) C (RS). Nashville Warbler: 10 May (1) C (RS). Parula Warbler: first 16 Apr. (1) C (RS). Yellow Warbler: first 15 Apr. (1) C (RS). Magnolia Warbler: 24 Apr. (1) RR (KD), 9 May (2) TRG (KD). Cape May Warbler: first 16 Apr. (1) C (RS), last 18 May (1) C (RS), max. 9 May (3). Black-throated Blue Warbler: 24 Apr. (1) RR (KD), 1

May (1) TRG (KD). Myrtle Warbler: last 30 Apr. (TOS). Black-throated Green Warbler: first 13 Mar. (1) TRG (KD). Cerulean Warbler: first 4 Apr. (1) MP (KD). Blackburnian Warbler: 30 Apr. (TOS). Yellow-throated Warbler: first 2 Apr. (1) CB (KD). Chestnut-sided Warbler: 24 Apr. (1) C (RS). 8 May (1) MP (KD). Bay-breasted Warbler: 1 May (1) TRG (KD), 2 May (1) C (RS). Blackpoll Warbler: first 30 Apr. (TOS), last 22 May (1) (KD), max. 9 May (3). Prairie Warbler: first 3 Apr. (3) TRG (KD). Palm Warbler: last 15 May (1) AM (KD). Ovenbird: first 8 Apr. (1) CB (KD). Northern Waterthrush: 13 Apr. (1) C (RS), 9 May (1) TRG (KD). Louisiana Waterthrush: first 27 Mar. (1) C (RS). Kentucky Warbler: first 12 Apr. (1) PP (KD). Connecticut Warbler: 15, 21 May (1 each) C (RS), 22 May (1) CB (KD). Yellowthroat: first 3 Apr. (2) MP (KD). Yellow-breasted Chat: first 16 Apr. (1) R (AW). Hooded Warbler: first 4 Apr. (1) TRG (KD). Canada Warbler: first 24 Apr. (1) C (RS), last 16 May (1) R (AW), max. 9 May (4). American Redstart: first 3 Apr. (1) TRG (KD). Bobolink: first 2 May (5) AM, MB (KD), last 11 May (25) CB (KD), max. 7 May (200+) MB (KD). Orchard Oriole: first 15 Apr. (1) R (AW). Baltimore Oriole: first 24 Apr. (1) C (RS), last 10 May (1) PP (KD). Rusty Blackbird: last 23 May (1) (TLR). Scarlet Tanager: first 12 Apr. (1) PP (KD). Summer Tanager: first 15 Apr. (2) CB (KD). Rose-breasted Grosbeak: first 5 Apr. (1) MP (TLR), last 20 May (2) (TLR), max. 8 May (3). Blue Grosbeak: first 18 Apr. (1) (KD). Indigo Bunting: first 17 Apr. (2) C, R (RS, AW). Dickcissel: 7 May (3) MB (KD), 29 May (1) (KD). Purple Finch: last 3 Apr. (3) MP (KD), very few records, max. 27 Mar. (15) CL (KD). Pine Siskin: 27 Mar. (1), 9 Apr. (1) R (AW). Savannah Sparrow: last 15 May (4) MB, AM (KD). Grasshopper Sparrow: first 10 Apr. (2) SB (KD). Vesper Sparrow: last 24 Mar. (1) CB (KD), max. 27 Mar. (11) CL, MP (KD). Lark Sparrow: 18 Apr. (1) HIA (KD). Slate-colored Junco: last 30 Apr. (TOS). White-crowned Sparrow: 18 Apr. (2) HIA, 2 May (3) AM (KD). White-throated Sparrow: 9 May (2) TRG (KD). Fox Sparrow: last 30 Apr. (TOS). Lincoln's Sparrow: 15 May (1) AM (KD). Swamp Sparrow: last 9 May (1) GP (KD).

Locations: R—Redbank, TRG—Tennessee River Gorge, MB—Moccasin Bend, CL—Chickamauga Lake, HIA—Hiwassee Island Area, MP—Morse Pond, Ga., AM—Amnicola Marsh, SB—Savannah Bay, C—Collegedale, WB—Waconda Bay, SD—Stone Door, Grundy County, CB—Chickamauga Battlefield, Ga., GP—Goose Pond, Grundy County, RR—Reflection Riding, BWP—Booker T. Washington State Park, PP—Point Park.

Observers: JD—Jon DeVore, KD—Kenneth H. Dubke, RE—Roy Evenson, TLR—Theo L. Rogers, RS—Roger Swanson or Chuck Turner, TOS—T.O.S. Spring Count, FW—Frank Ward, AW—Adele West.

KENNETH H. DUBKE, 3302 Navajo Drive, Chattanooga 37411.

GREENEVILLE—*Grebe-Vulture:* Pied-billed Grebe: 24 Mar. (1) M. Great Blue Heron: 19 Apr. (1) RF. Green Heron: 8 May (1) RF. Yellow-crowned Night Heron: 29 Mar. (1) RF, 2 Apr. (4) RF, 21 Apr. (2) GrC, 10 May (4) RF. Canada Goose: 21 Mar. (6) RF. Mallard: 10 Mar. (4), 22 Mar. (2) RF. Blue-winged Teal: 5 Mar. (2), 7 Mar. (2) RF. Wood Duck: 24 Mar. (2)

LC, 3 Apr. (2) GrC, 16 Apr. (2) RF, 21 Apr. (1) GaC. Black Vulture: 21 Mar. (2) RF, 17 Apr. (1) RF.

Hawks-Cuckoos: Sparrow Hawk: 4 Mar. (2) daily through 2 Apr. RF. Woodcock: 1 Apr. (1) M, 29 Apr. (4) CSM (RS). Common Snipe: 10 Mar. (1) RF, 1 Apr. (1) M, 18 Apr. (1) RF. Solitary Sandpiper: 11 Apr. (1) RF. Lesser Yellowlegs: 26 Mar. (1) RF. Yellow-billed Cuckoo: 20 Apr. (1) RF.

Owls-Waxwings: Barn Owl: 20 Mar. (1) RF. Screech Owl: 21 Mar. (1) RF. Chimney Swift: 10 Apr. (6) G, 16 Apr. (3) RF. Ruby-throated Hummingbird: 20 Apr. (1) RF. Great Crested Flycatcher: 21 Apr. (1) GrC. Phoebe: 11 Mar. (1) RF, 13 Mar. (1) RF. Barn Swallow: 2 Apr. (2) RF. Purple Martin: 12 Mar. (2), 13 Mar. (10) CA. Raven: 9 May (2) CSM (RS). White-breasted Nuthatch: 11 Mar. (2) M. Catbird: 12 Apr. (1) RF. Brown Thrasher: 9 Mar. (1) LC. Bluebird: 11 Mar. (1) GrC, 21 Mar. (1), 22 Mar. (1) RF. Ruby-crowned Kinglet: 1 Apr. (1), 2 Apr. (1) RF. Cedar Waxwing: 14 May (30) RF, 21 May (35) G (RS).

Warblers-Sparrows: Prothonotary Warbler: 9 Apr. (1) W, 15 May (6: 2 adult, 4 young) W. Parula Warbler: 5 Apr. (1) M. Yellow Warbler: 19 Apr. (1) RF. Red-winged Blackbird: 8 Mar. (50 males) RF. Brown-headed Cowbird: 19 Mar. (50) RF. Purple Finch: 7 Apr. (10) RF. Rufous-sided Towhee: 13 Mar. (1) RF. Slate-colored Junco: 13 Mar. (1) RF, 1 Apr. (5) MC. White-crowned Sparrow: present through Mar., Apr.; last 10 May (1) RF.

Locations: CA—Cross Anchor, CSM—Cold Spring Mountain, GaC—Gap Creek, GrC—Grassy Creek, G—Greeneville, M—Marvin, MC—Mount Carmel, LC—Lick Creek, RF—Roaring Fork Creek, W—Warrensburg.

Observers: RN—Richard Nevius, RS— Royal Spees.

RICHARD NEVIUS, Route 3, Greeneville 37743.

BRISTOL—*Loons-Widgeons:* Common Loon: 18 Apr. (4) SHL, 23 Apr. (2) SHL, 29 May (2) SHL (WC). Pied-billed Grebe: regular until last 23 Apr. (1). Great Blue Heron: 1 Mar. (32) PHL (WC, HH), 24 Mar. (1) SV, 23 Apr. (1) SHR. Green Heron: 23 Apr. (1). Mallard: regular 1 Mar. to 23 Mar. (6) max. SHL. Black Duck: 1 Mar. (6) PHL. Green-winged Teal: 5 Mar. (2), 14 Mar. (2), 15 Mar. (3), 16 Mar. (2) all SHL. Blue-winged Teal: a few regular from 13 Mar. (4) to 25 Mar. (3) all SHL, max. 15 Mar. (7) and 16 Mar. (7). American Widgeon: regular and numerous from 1 Mar. (17) PHL to 25 Mar. (85) SHL, max. 23 Mar. (100) SHL. European Widgeon: one adult male present from 13 Mar. to 25 Mar. SHL, Va. observed by: CF, WC, HH, LH, TF, BB, CS, DM, JS, BQ; additional note to be published elsewhere.

Wood Duck-Coots: Wood Duck: 22 Mar. (2) SHR. Ring-necked Duck: 16 Mar (1). Lesser Scaup: 7 Mar. (24) SHL. Bufflehead: 22 Mar. (7) SHR. Hooded Merganser: 24 Mar. (4) SV (WC, JS). Black Vulture: 7 Mar. (18) SHL, 22 Mar. (1). Cooper's Hawk: 17 Apr. (1) SHL, 30 Apr. (1). Red-tailed Hawk: 7 Mar. (1) SHL, 13 Mar. (2) SHL, 15 Mar. (1), 25 Mar. (1), 17 Apr. (1). Red-shouldered Hawk: 4 Mar. (1) SV (WC, CC), 24 Mar. (1) SV (WC, JS), 18 Apr. (1) SHL (WC). Marsh Hawk: 27 Apr. (1) BCC (WC, DM). Osprey: 23 Apr. (2) SHL, Tenn. (only record), 29 Apr. (4)

BL. Sparrow Hawk: regular during period. American Coot: regular 1 Mar. to 25 Mar., max. 7 Mar. (9) SHL.

Woodcocks-Pewees: American Woodcock: 4 Mar. (3) SV (WC, CC, JS), 5 Mar. (1), 3 May (4), 10 May (1). Common Snipe: 4 Mar. (1) SV, 12 Mar. (2) SHL, 25 Mar. (3) BT. Spotted Sandpiper: 29 Apr. (8) BL, 17 May (1) SHL. Solitary Sandpiper: 29 Apr. (2) BL. Greater Yellowlegs: 29 Apr. (1) BL. Dunlin: 16 May (1) SHL (WC). Ring-billed Gull: regular to 25 Mar. (6) last, max. 5 Mar. (29) SHL. Common Tern: 27 May (1) SHL (WC). Yellow-billed Cuckoo: 4 May (1) first. Black-billed Cuckoo: 23 Apr. (3) first. Great Horned Owl: 1 Mar. (1) SV (JS). Chuck-will's-widow: 22 Apr. (1) SHR (HWN) first. Whip-poor-will: 31 Mar. (1). Common Nighthawk: 20 Apr. (1). Chimney Swift: 31 Mar. (4) first. Ruby-throated Hummingbird: 19 Apr. (1). Red-bellied Woodpecker: regular until 29 Mar. Red-headed Woodpecker: 10 Mar. (1), 25 Mar. (1). Yellow-bellied Sapsucker: 16 Apr. (1) last. Eastern Kingbird: 18 Apr. (2) first. Great Crested Flycatcher: 17 Apr. (1) first. Eastern Phoebe: 19 Mar. (1). Acadian Flycatcher: 13 May (1). Wood Pewee: 13 May (2) first.

Larks-Vireos: Horned Lark: 13 May (3) SV. Tree Swallow: 29 Apr. (2), 16 May (7) SHL, 31 May (2) TCA (WC) late. Bank Swallow: 16 May (18) SHL. Rough-winged Swallow: 16 Apr. (2) first. Barn Swallow: 1 Apr. (1) first. Cliff Swallow: 16 May (9) SHL. Purple Martin: 24 Mar. (1) first. Brown Creeper: 26 Mar. last. House Wren: 9 Apr. (1) first. Catbird: 18 Apr. (1) first. Robin: increased steadily after 5 Mar. Wood Thrush: 13 Apr. (1) first. Blue-gray Gnatcatcher: 17 Apr. (1) first. Golden-crowned Kinglet: 24 Mar. (1) SV, 25 Mar. (1) BT last. Ruby-crowned Kinglet: 11 Apr. (1) BT, 13 Apr. (3) SHL, 23 Apr. (2) BT last. Cedar Waxwing: regular from 20 Mar. to 31 May (32). Loggerhead Shrike: numerous and regular, few in May. White-eyed Vireo: 18 Apr. (1) first. Red-eyed Vireo: 16 Apr. (1) first.

Warblers-Sparrows: Black-and-white Warbler: 21 Apr. (1) first. Worm-eating Warbler: 29 Apr. (1). Tennessee Warbler: 13 May (1) SV. Parula Warbler: 16 Apr. (1) first. Yellow Warbler: 10 Apr. (1) first. Magnolia Warbler: 13 May (2). Cape May Warbler: 19 Apr. (1) Myrtle Warbler: max. and last 23 Apr. (12). Black-throated Green Warbler: 13 May (1) SV. Bay-breasted Warbler: 13 May (1) HM Sullivan Co. Blackpoll Warbler: 13 May (1). Pine Warbler: 16 Mar. (1) SV, 13 Apr. (1) SHL. Prairie Warbler: 13 Apr. (4) first. Ovenbird: 29 Apr. (6). Louisiana Waterthrush: 17 Apr. (1) first. Kentucky Warbler: 23 Apr. (1) first. Yellowthroat: 23 Apr. (1) first. Yellow-breasted Chat: 24 Apr. (1) first. Hooded Warbler: 13 May (2) first. Canada Warbler: 1 May (1) first. American Redstart: 21 Apr. (1) first. Bobolink: 13 May (1) SV (WC). Red-winged Blackbird: 7 Mar. (4) first. Orchard Oriole: 29 Apr. (3) first. Baltimore Oriole: 21 Apr. (1) first. Rusty Blackbird: 28 Mar. (5) SV, 24 Mar. (1) SV, 19 May (2) BT. Common Grackle: 5 Mar. (200) first. Brown-headed Cowbird: 4 Mar. (9), common by 28 Mar. and afterwards. Scarlet Tanager: 17 Apr. (1) first. Summer Tanager: 23 Apr. (1) first. Rose-breasted Grosbeak: 13 May (3). Blue Grosbeak: 30 Apr. (1) HV (WC). Indigo Bunting: 30 Apr. (1). Dickcissel: 20 May (3) TCA (CC, WC), 28 May (3) TCA (WC), 31 May (2) TCA (WC). Purple Finch: 29 Mar. (1) (JA), 17 Apr. (5) PV (WC), only records of winter. Rufous-sided Towhee: regular and increasing after 4 Mar. (1). Savannah Sparrow: 17 Mar. (1), 22 Mar. (1), 25 Mar. (1). Grasshopper Sparrow: 17 Apr.

(1) first. Vesper Sparrow: 16 March (5) SV first, 24 Mar. (15) SV, 25 Mar. (1). Slate-colored Junco: 21 Apr. (2) last. Chipping Sparrow: 24 Mar. (1) SV first. White-crowned Sparrow: 9 May (3) last. White-throated Sparrow: 14 May (1) last. Swamp Sparrow: 24 Mar. (1) SV, 23 Apr. (1) SHR.

Locations: BCC—Bristol Country Club, Tenn., BL—Boone Lake, BT—Bristol, Tenn., HM—Holston Mountain, HV—Holston Valley, PHL—Patrick Henry Lake, PV—Paperville, SHL—South Holston Lake, Tenn., SHL, Va.—South Holston Lake, Virginia, SHR—South Holston River, Tenn., TCA—Tri-City Airport, SV—Shady Valley, Johnson County, Tenn.

Observers: JA—Judith Abbott, FB—Fletcher Bingham, BB—Bill Bridgeforth, CC—Carolyn Coffey, WC—Wallace Coffey, TF—Tom Finucane, CF—Carl Fleenor, HH—Harvey Hawk, LH—Lee R. Herndon, BQ—Bob Quillen, DM—David McPeak, JBS—Jim Shepherd, JS—John Shumate, CS—Charles Smith, EV—Enno vanGelder, RV—Roger vanGelder, HW—Hank Woodward, HWN—H. W. Nunley.

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ELIZABETHTON—*Loons-Gulls:* Common Loon: only 30 Apr. (1). Horned Grebe: last 26 Mar. (2) BL. Pied-billed Grebe: last 30 Apr. (2). Great Blue Heron: only 11 Mar. (4) PHL. Green Heron: first 15 Apr. (1). American Bittern: 13, 14, 15, 30 Apr. (1) MC (CRS). Mallard: last 30 Apr. (2). Black Duck: last 11 Mar. (12). Gadwell: last 26 Mar. (10). Green-winged Teal: 26 Mar. (2) BL. Blue-winged Teal: 30 Apr. (2). American Widgeon: last 26 Apr. (30) BL. Shoveler: last 30 Apr. (2). Wood Duck: throughout the period. Redhead: last 26 Mar. (8) BL. Ring-necked Duck: last 30 Apr. (1). Lesser Scaup: last 30 Apr. (162). Common Goldeneye: last 30 Apr. (1). Bufflehead: last 30 Apr. (35). Red-breasted Merganser: last 30 Apr. (1). Sharp-shinned Hawk: 30 Apr. (4) MC (CRS). Cooper's Hawk: 6 Apr. (1). Red-tailed Hawk: 5 Mar. (1) RM, 28 May (1) HM. Broad-winged Hawk: first 9 Apr. (1) RM (FWB). Osprey: 22 Apr. (1), 30 Apr. (1), 28 May (1) HM. American Coot: last 30 Apr. (7). American Woodcock: last heard 14 Apr. (1). Common Snipe: last on 30 Apr. (4). Spotted Sandpiper: 30 Apr. (3), 15, 16, 17 May (1) (WAB). Solitary Sandpiper: first 15 Apr. (1) (HD), last 14 May (1). Lesser Yellowlegs: 30 Apr. (2) RC (LRH). Ring-billed Gull: only 26 Mar. (3), 30 Apr. (5).

Cuckoos-Vireos: Black-billed Cuckoo: first 22 Apr. (2) .Barred Owl: 20 Apr. (1) RM (FWB). Chuck-will's-widow: first 23 Apr. (2) MC (CWF). Whip-poor will: first 10 Apr. (1) (HD). Common Nighthawk: first 21 Apr. (1) (WAB). Chimney Swift: first 4 Apr. (2). Ruby-throated Hummingbird: first 30 Apr. (3). Red-headed Woodpecker: 27 Apr.-31 May (1-2) (HD). Yellow-bellied Sapsucker: last 30 Apr. (3). Hairy Woodpecker: 27 Mar. (1), 1 Apr. (1), 23 Apr. (1). Eastern Kingbird: first 13 Apr. (1). Great Crested Flycatcher: first 15 Apr. (1). Acadian Flycatcher: first 16 Apr. (1). Least Flycatcher: first 23 Apr. (1). Eastern Wood Pewee: first 30 Apr. (3). Tree Swallow: 30 Apr. (9). Bank Swallow: 30 Apr. (2), 3 May (2). Rough-winged Swallow first 1 Apr. (3). Barn Swallow: first 8 Apr. (1) (GD). Cliff Swallow: 3 May (1). Purple Martin: first 8 Mar. (1). Brown Creeper: last 27 Mar. (2). House Wren: first 15 Apr. (1). Bewick's Wren: 1 Apr. (1) and throughout May (LRH). Catbird: first 16 Apr. (2). Brown Thrasher: first 29 Mar. (1). Wood Thrush: first 8 Apr. (1) (HD). Hermit

Thrush: last 30 Apr. (1) MC (CRS). Veery: first 30 Apr. (1). Blue-gray Gnatcatcher: first 9 Apr. (2). Ruby-crowned Kinglet: last 30 Apr. (11). Cedar Waxwing: uncommon, 31 Mar. (8), 8 Apr. (2), 20 May (2). Loggerhead Shrike: uncommon since 11 Apr. White-eyed Vireo: first 16 Apr. (2). Yellow-throated Vireo: first 30 Apr. (2), last 17 May (1). Solitary Vireo: first 1 Apr. (1) (LRH). Red-eyed Vireo: first 9 Apr. (1). Warbling Vireo: first 30 Apr. (2).

Warblers-Sparrows: Black-and-white Warbler: first 9 Apr. (2). Worm-eating Warbler: first 30 Apr. (3). Golden-winged Warbler: first 30 Apr. (3). Nashville Warbler: 30 Apr. (1) MC (CRS). Parula Warbler: first 16 Apr. (1). Yellow Warbler: first 15 Apr. (1). Magnolia Warbler: only 30 Apr. (1). Black-throated Blue Warbler: first 23 Apr. (1). Myrtle Warbler: last 5 May (1). Black-throated Green Warbler: first 9 Apr. (2). Blackburnian Warbler: first 30 Apr. (3). Chestnut-sided Warbler: first 23 Apr. (1). Blackpoll Warbler: only 21 May (1) MC (CRS). Prairie Warbler: first 14 Apr. (1). Ovenbird: first 22 Apr. (1). Northern Waterthrush: only 30 Apr. (1). Louisiana Waterthrush: first 2 Apr. (1). Kentucky Warbler: first 30 Apr. (2). Yellowthroat: first 15 Apr. (2). Yellow-breasted Chat: first 23 Apr. (2). Hooded Warbler: first 22 Apr. (1). Canada Warbler: first 6 May (2). American Redstart: first 30 May (5). Bobolink: only 30 Apr. (1) (CWF). Orchard Oriole: first 17 Apr. (1). Baltimore Oriole: first 30 Apr. (3). Rusty Blackbird: last 12 Apr. (2) (HD). Summer Tanager: first 26 Mar. (1) (CRS). Rose-breasted Grosbeak: first 23 Apr. (3). Indigo Bunting: first 23 Apr. (1). Purple Finch: 5, 8 Apr. (2), 16 Apr. (1). Savannah Sparrow: 28 Mar. (1), 30 Apr. (6). Grasshopper Sparrow: first 15 Apr. (2). Vesper Sparrow: first 23 Mar. (1). Chipping Sparrow: first 4 Mar. (1) (GD). White-crowned Sparrow: last 12 May (1) MC (CWF). White-throated Sparrow: last 16 May (1) (WAB). Swamp Sparrow: only 30 Apr. (1).

Locations: BL—Boone Lake, HM—Hump Mountain, MC—Milligan College, PHL—Patrick Henry Lake, RC—Roan Creek area of Watauga Lake, RM—Roan Mountain.

Observers: FWB—Fred W. Behrend, WAB—William A. Bridgforth, Jr., HD—Mrs. Harold Dillenbeck, CWF—C. W. Fairbanks, LRH—Lee R. Herndon, CRS—Charles R. Smith.

CHARLES R. SMITH, Route 2, Johnson City 37601.

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THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

Published by
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EPTEMBER 1967

THE MIGRANT

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Most articles published in THE MIGRANT are written by T. O. S. members and comprise their major contribution toward carrying out the Society's purposes. The Editor, like other officers, receives no remuneration for the considerable work he does so the proper preparation of copy will help toward reducing his work. All manuscript should be typed on one side of 8½x11 paper, double spaced, and with good margins. Provide a concise, meaningful title and, where needed, subtitles within the text. Footnotes are not used. Bibliography, when used, should be brief. Examine past issues of THE MIGRANT and follow the style there used, noting that "main articles" and Round Table items are set up differently. Acceptable for inclusion are articles describing the habits of birds as noted from original observations in Tennessee or adjacent areas. Reports on occurrence of unusual species should give full data on the observation so that the record may be evaluated. The value of this publication depends upon the correctness of what it presents so accuracy of statement and identification are obvious requirements. In addition to such articles, are reports on our regularly scheduled projects, such as Spring Migration, Spring Field Counts, Breeding Bird Counts, Hawk Migration, and the Christmas Census. Each of these are reported upon by duly appointed leaders and it is their duty to see that questionable records are eliminated.

THE MIGRANT

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VOL. 38 SEPTEMBER 1967 NO. 3

A BREEDING CENSUS OF THE PILEATED WOODPECKER: A PRELIMINARY REPORT

BY ROBERT W. MCGOWAN

As this study was originally conceived, the purpose was two-fold: (1) to determine the breeding status of the Pileated Woodpecker *Dryocopus pileatus* (Linnaeus) in a relatively undisturbed forested area in West Tennessee, and (2) to provide information which could lead to further life history and ecological studies of this species in this particular area.

THE AREA

Shelby Forest State Park is composed of approximately 12,500 acres lying on the east bank of the Mississippi River, 15 miles north of Memphis, Tennessee. The area is a part of the Third Chickasaw Bluff. The city of Memphis lies on the Fourth Chickasaw Bluff.

Shelby Forest is divided by a north-south escarpment into two distinct physiographic regions: the alluvium, a part of the Mississippi River flood plain, which includes about three-fifths of the park area, and the bluffs, formed by wind-blown soil.

The park has been relatively undisturbed by man since 1935. Previous to 1935, when the area was reclaimed by the Land Reclamation Act and developed by the National Park Service and the W.P.A., the land had been cut over, eroded, and fire-ridden. It now is a healed forest area, typical of secondary succession of the western zone of the eastern deciduous forest.

The bluff area is largely a mixed oak-hickory, beech-maple climax. Some of the largest trees on the bluffs are American beech, many of which are fire damaged and hollow, or with dead limbs, but still alive.

The alluvium is composed of typical bottom-land species—black gum, sycamore, elm, oak, hackberry, water locust, and bald cypress. The southern cypress swamp habitat is common in the alluvium, with dead trees standing in water during the winter and spring seasons.

There are two man-made lakes in the area, one 147 acres, the other 35 acres. In the bottom lands there are several natural lakes, or ponds, small and subject to drying up during the summer and fall months with little rainfall. Several small, clear, permanent streams course through the bluff areas, flowing into the bottom land.

A report on the subject of the above paper was presented to the Tennessee Ornithological Society at its annual meeting on 6 May 1967 at Paris Landing State Park—Eds.

PROCEDURE

The area was studied from 19 December 1966 to 30 May 1967. Bill Lawhon, biology major at Memphis State University, assisted me in the study. Mr. Lawhon has been a student in my ornithology, field botany, and ecology courses at Memphis State and plans to enter graduate school in January 1968.

We decided that our goal was not to make a calculated density study nor an estimated population count, but to make a direct count of the breeding Pileated Woodpeckers in the area. We were aware of the many difficulties involved in such a study, but considering that one of the goals was to locate specific breeding stations which could be visited and studied in future years, we felt that our choice was the desirable one.

First, we divided the 12,500 acre area into 21 plots. The size of plots was determined by roads, access, natural terrain, and personal experience from previous field work in the park. A planimeter was used to determine the acreage of each plot.

During the course of the study, twenty visits were made to the plots. This constituted 240 man hours of field work. Since the woodpeckers are usually found near water and in heavily wooded areas with large timber, we concentrated on those areas with suitable habitat. Also, we wanted to locate areas of roosting and nesting holes before the leaves appeared in the spring. Once we found the areas of roosting and nesting, we felt that we could visit these stations during the nesting season, and in subsequent nesting seasons. The Pileated Woodpecker returns to the same tree or same area for several years, but the same nest hole is not used again for nesting. We found trees with several Pileated Woodpecker holes in the same tree.

Notes were kept for exact location of individual trees, the species of trees, number of holes in each tree, which direction the holes faced, the diameter-breast-high of the trees, the height of the holes, whether the tree was alive or dead, and if the holes were located in dead limbs of live trees. The diameter-brest-high of the trees was measured with a diameter tape, and the height of the holes was determined with a range finder. Photographs were made of the station area, the trees, and of the holes whenever possible.

RESULTS

Since this is a preliminary report, covering only one season of study, results are incomplete. Due to the nature of such a survey, data will always be somewhat incomplete; however, as future studies are made in this park, more revealing data can be expected.

The 21 plots we designated for study included 11,110 acres. Thirteen of these plots were visited, encompassing 5,110 acres. During the first half of 1968, we hope to study the remaining 54% of the park area, located mainly in the bottom-land.

We feel that the information gathered during this first season of study is rather interesting.

We located many trees with roosting or nesting holes which were obviously several years old, with no indication of recent woodpecker activity. We found 24 individual trees which we felt deserved further observation, the holes being of recent origin. Almost half of these 24 trees were American beech. The next most common species was the elm, located mainly in the bottom land, followed by species of the white oak group. Other species included the black oak group, American sycamore, hackberry, and tulip poplar. Since most of the unworked area is bottom-land, this profile of tree species will change when the survey is complete.

Twelve of the trees were alive, 11 were dead trees, and one hole of recent origin was found in the dead limb of a live tree.

The average diameter-breast-high of these trees was 2 feet 1 inch. The average height of roosting or nesting holes was 41 feet. One hole was found only 4 feet from the ground.

Of 48 holes, 52% faced south, 21% faced southeast, 11% faced southwest. Only 2% faced north, and only 2% faced west.

We established 7 stations within the plots surveyed which we felt warranted more visits and further observation. These stations were established on the basis of abundance of sight and call records and evidence of new diggings. Each of these stations was revisited during the survey to establish the presence of the woodpeckers. In only one instance were we able to observe the activity of both the male and female woodpeckers at a nest tree.

Unfortunately, at the height of the nest building and incubation period, probably occurring in this area during the last of April to the middle of May, I had to be away on week-end trips with my field courses at the university, or at out-of-town meetings on week-ends. This was regrettable, but unavoidable.

Mr. Lawhon has recently indicated to me a desire to pursue this study as a part of his requirements for a master's degree. We anticipate an ecological study combined with the breeding census. Should he choose to undertake such a study, this survey can be meticulously extended from the beginning summarized in this preliminary report, and the two-fold purpose of this investigation will have been accomplished.

ACKNOWLEDGMENTS

Thanks are gratefully extended to Mr. J. L. Myers, Supt. of Shelby Forest State Park for his generous cooperation in this study; to Mr. Mack Prichard, Parks Naturalist, Tennessee Division of State Parks, who furnished me with maps of the area; and to Memphis State University for providing a grant for travel and equipment with funds from the National Science Foundation.

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Department of Biology, Memphis State University, Memphis 38111.

ROUND TABLE NOTES

FULVOUS TREE DUCK AT KENTUCKY LAKE—On 9 September 1965, Wayne Bollock and the writer observed one Fulvous Tree Duck (*Dendrocygna bicolor*) walking the pebble beach of Lucas Harbor at the Indian Creek Embayment of the Tennessee River on Kentucky Lake.

The long-legged, rather tawny-colored bird stayed within 20 yards of the observers for about fifteen minutes. It had a long, gangly neck, a white stripe on its sides, and its posture was completely unlike anything the writer had seen previously. The writer had seen preserved specimens in ornithology courses and as such is positive of the identification.

GEDEON D. PETIT, Camden.

BARRED OWL CALLER—On 7 and 8 April 1967 my family camped under a Barred Owl, *Strix varia,* nest in David Crockett State Park, Lawrence County. The two young were downy, white, and perhaps $\frac{3}{4}$ as large as the parents. The parents remained in the vicinity, but we did not see them go to the nest during the day.

About 12:45 PM on 8 April, a clear day, a large fire siren sounded eight times. One of the owls answered with a full eight-note call each time. The other responded weakly, later, and only part of the time. At 3:00 PM the siren sounded six times, with identical results. The descending part of the siren sound closely resembled the owl's last note, but the owl always answered before the siren reached its highest pitch. All of our efforts to get the owls to call before dusk were unsuccessful.

DAVID E. PATTERSON, Harbert Hills Academy, Olive Hill 38475.

RED-COCKADED WOODPECKER NESTING NOTES—On 25 April 1967 the writer and Roy Evenson spent several hours searching suitable habitat for nesting Red-Cockaded Woodpeckers, *Dendrocopos borealis,* in the Catoosa Wildlife Management Area. Two individuals were noted at the Daddy's Creek site. This is the same location where they were known to have active nests in 1962 and 1966. One bird appeared broodish and was noted to quickly leave the nest when the tree was pounded. It quickly returned when we retreated a short distance to observe.

Another active nest site was located a short distance from where the road crosses Polecat Branch. One bird was noted to enter the nest cavity and appeared to be incubating. Although this tree in 1966 possessed a typical nest cavity, at that time it did not appear to have been used.

A single woodpecker was observed feeding on a live pine with a typical nest hole near Mill Branch. The tree was visited a couple of times and pounded vigorously but produced only negative results. This cavity was present at the time the active nest was found directly across the road in 1965. The 1965 nesting tree is dead and no longer usable. The above sighting may have been a bird from the nearby Polecat Branch site.

KENNETH H. DUBKE, 3302 Navajo Drive, Chattanooga 37411.

OSPREY NESTING ATTEMPT NEAR HIWASSEE ISLAND—On a routine check for waterfowl in the Hiwassee Island area, Meigs County, 23 January 1967, the writer and Jon DeVore located what appeared to be an old Osprey, *Pandion haliaetus*, nest. It was located near the water, at the top of a large living oak tree. The nest appeared to be substantial and well made. On 18 April, the writer and Roy Evenson investigated the site and noted one bird incubating and its mate perched on a nearby dead snag. Evenson and the author checked again 16 May and discovered the nest and Osprey missing. All that remained were a few sticks.

It's easy to speculate on what happened to the nest, but difficult to arrive at any satisfactory conclusions. The area had earlier been hit by hard winds and may have blown down. The tree was well branched and a determined person could have climbed to it, but there was no evidence to prove it. As this area is seldom visited by Chattanooga observers it's difficult to say whether the pair attempted to renest. About this time U.S. Coast Guard personnel reported sticks being mysteriously placed on nearby navagational markers, but nothing to compare to a finished nest.

This pair of Osprey is in addition to the pair reported nesting on Watts Bar Lake (THE MIGRANT 37:13 1966). For the record, from the very meager information available, it appears the Watts Bar Lake pair did not raise young again this year.

KENNETH H. DUBKE, 3302 Navajo Drive, Chattanooga 37411.

YELLOW-HEADED BLACKBIRD—On 29 April 1967, Ann Switzer, on a routine check of the birds at the old fish-hatchery, Gray Station, near the boundry between Sullivan and Washington Counties, spotted a Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*) in a group of Red-winged Blackbirds (*Agelaius phoeniceus*) on some reeds and a few blackberry brambles. She watched the bird at a distance of 75 to 100 ft., for 10 min., thru 8.5 x 44 Swift binoculars (new Dec. 1966). The sun was bright, 8 a.m. EST, and to the left of the observer.

Mrs. Switzer had seen the Yellow-headed Blackbird several times in western U.S.A., once in a nesting colony. The species has been observed rather frequently wandering in the east, for example in Ark., Fla., La., Mass., Mich., Miss., N. J., Ohio, Pa., Md., Va., and at sea, 67 mi ENE of Cape Hatteras. Previous Tennessee records have been in Chattanooga (THE MIGRANT, 27, 56, 1956, and 30, 15, 1959).

"The Yellow-head's plumage is so striking and distinctive in its color contrasts that the identification of the birds ought to be easy for anybody," according to T. Gilbert Pearson (BIRDS OF AMERICA, 1917, p. 247). Cruickshank says field workers should not kill stray Yellow-heads: "Anyone who cannot identify such species in the field should not participate in a Christmas Bird Count." (67th Christmas Bird Count, AFN, 21, I, 1967.)

THOMAS W. FINUCANE, 1434 Watauga Street, Kingsport 37664.

LAUGHING GULL IN KNOX COUNTY—On 9 September 1967, Jim Campbell and I were looking for shore-birds on the University of Tennessee Plant Science Farm (THE MIGRANT 38:1-3) and for migrating terns over Fort Loudoun Lake which borders the farm's south and west perimeters. We had slowly worked our way to the lake's edge and were scanning the numerous snags, buoys, and brushpiles in the channel when Jim spotted a grayish-white bird perched on one of the drifted trees stranded in the shallower waters about 500 feet from shore.

Careful examination through the 7X and 12X binoculars we carried proved the bird was definitely a gull; not a tern as we expected. Further scrutiny revealed the gull had a black beak and black legs. Still we were not sure of the field marks because of the low magnification of our optics and the distance to the bird. I retrieved a pair of 20 x 60 binoculars from my car and with these the leg color was established; definitely black. A loud report from the opposite shore startled the gull into flight and our identification was confirmed. In flight the bird displayed the dark mantle, dark wing tips, and *white bordered* secondaries and primaries of the Laughing Gull (*Larus atricilla*). The dark wing tips without a white band separating them from the rest of the wing ruled out the only similar species, Franklin's Gull (*Larus pipixcan*), which would indeed have been rare in east Tennessee. The bird was in the winter plumage of an adult. It was first seen at 11:30 AM (EDST) and remained where we found it until 1:42 PM when on the approach of a motorboat it flew toward it and followed it downstream and out of sight.

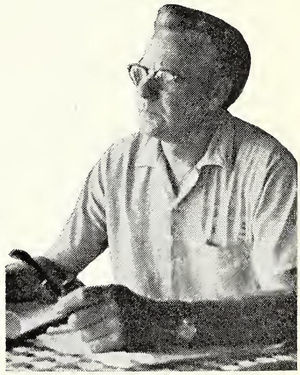
A check with J. B. Owen and Dr. J. T. Tanner confirmed this to be the second record of this species for Knox County. The only other published record was thirty-five years before, on 18 September 1932. "Six Laughing Gulls were sighted on Baker's Shoals on the Tennessee River. One was collected and mounted by S. A. Ogden and sent to the Biological Survey where Mr. A. H. Howell verified the identification," Howell, J. C. and Muriel B. Monroe, *Birds of Knox County*, 1957.

Field guides used in the identification were: Peterson, R. T., *A Field Guide to the Birds*, 29th Impression, Jan. 1962, and Robbins, C. S., B. Brunn, and H. S. Zim. *Birds of North America*, 1966.

FRED J. ALSOP, III, Dept. of Zoology and Entomology, University of Tennessee.

THE PRESIDENT'S MESSAGE

Congratulations to all those T.O.S. members who have planned and participated in the first annual "Tennessee Ornithological Symposium," held 28-29 October at Watts-Bar Resort. Interesting papers and field trips were part of the program. This sounds exciting and I'm sure that all who participated were well rewarded. Again, congratulations. Such enthusiasm is to be commended, and let's hope that it is catching.



One of the things your President has learned is that there is more to this job than meets the eye. Another is that the organization is made up of very busy people who unselfishly give their time and energy to the T.O.S. And one thing I am in the process of learning is that things take time.

Our editors of THE MIGRANT are experiencing considerable difficulty in taking care of all the mechanical details in getting the publication in the mail. I have been quite concerned with this problem, as it has been explained to me by the editors, and have conferred with T.O.S. members with experience in these matters. Apparently, the problem has been compounded by the 6 May 1967 change in the constitution (Sec. 12, Art. III) designating the duties of the editor. We are very busy trying to solve the problem, but I frankly don't know the answer as yet. However, with patience and cooperation, the answer can be found. I'm sure that the editorship would appreciate some much-needed volunteer help. Also, at this writing, I think it urgent to have a full discussion of this problem at the next annual meeting.

I hope that the newly-appointed membership committee is now active and finding some gratification in performing this very important function of any organization.

And from Edwin Way Teale's book, *Circle of the Seasons*: The measure of an enthusiasm must be taken between interesting events. It is between bits that the lukewarm angler loses heart. It is between birds that the mildly interested watcher gives up. The true devotee possesses an enthusiasm that burns so fiercely it carries him over the uneventful between-times when nothing is happening.

Sincerely,

Robert W. McGowan

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25 April 1967

Annella Creech, *Treasurer*

THE SEASON

Charles R. Smith, *Editor*

The summer season (June, July, and August) has been unusually wet and cold throughout the state. July seems to be most exempliary of extremes with as much as 10.65 inches of rain in the Nashville area and rainfall in other areas being as much as five inches greater than the average for the month. July temperatures were from six to eight degrees lower than the average for that month in other areas across the state. June and August tended to be a little dryer, but generally cool temperatures prevailed during both of these months.

Several reports for the period indicate that some spring migrants, particularly waterfowl, seemed to linger longer than usual in some areas. Also, the fall migration appeared to have started earlier than usual in many areas. The unusual weather of the period may have been a factor contributing to these migration trends; however, any further correlation of these factors would be mere speculation at this time.

Notable records across the state are as follows: Least Bittern at Bristol, Common Scoter at Knoxville, American Coot all season at Savannah, Stilt Sandpiper at Chattanooga, Short-billed Marsh Wren at Memphis and Chattanooga, and Mourning Warbler at Knoxville. Reports also indicate a fair distribution of the Blue Grosbeak across the state during this summer season.

MEMPHIS—*Rails-Doves*: Sora 13 Aug. (1) to 27 Aug. (6) BA. Upland Plover: 15 July (9) BA, 3 Aug. (2) MMA, 26 Aug. (3) PF. Mourning Dove: 15 July (320) PF.

Cuckoos-Wrens: Roadrunner: 9 July (1) KKK. Western Kingbird: 27 Aug. (1) BA. Tree Swallow: 13 Aug. (5,050) HSL. Short-billed Marsh Wren: 26 Aug. (4) PF (first late summer near Memphis in two decades).

Locations: BA—Booker, Ark., Lake Alpe & W.; HSL—Horseshoe Lake, Crittenden Co., Ark.; KKK—Hardy, Ark. (Sitka); MMA—Memphis Airport; PF—Penal Farm, Memphis, Tenn.

Observers: Lula Coffey and/or Ben Coffey.
BEN B. COFFEY, JR., 672 N. Belvedere, Memphis 38107.

SAVANNAH—*Loon to Sparrows*: Common Loon: 3 and 8 Aug. (1) P. Pied-billed Grebe: 22 and 28 Aug. (1) P. Little Blue Heron: 19 Aug. (1, white) H. Sparrow Hawk: 9 July, 25 Aug. (1). American Coot: all season (4). Spotted Sandpiper: 15 July (1). Terns: none this year. Great Horned Owl: 16 and 24 Aug. (2). Yellow-throated Vireo: to 15 June (4). Warbling Vireo: 24 June (1) H. Cerulean Warbler: to 19 Aug. (4). Hooded Warbler: all season (1). Redstart: 10 Aug. (1) I. Scarlet Tanger: to 6 July (2). Blue Grosbeak: all season (6). Dickcissel: to 19 Aug. (10). Lark Sparrow: 3 and 22 June, 14 July (2).

Locations: H—Harbert Hills, I—Indian Creek, P—Pickwick Dam and Lake.
Observers: Larry Bowles, Mike Patterson, Bob Wint.

DAVID E. PATTERSON, Harbert Hills Academy, Olive Hill 38475.

NASHVILLE—*Grebes-Terns*: Horned Grebe: 1 June (2) BL (HEP), 10 days latest ever. Pied-billed Grebe: 7 June (1) BL (HEP), then none until 10 Aug. (1) RL (MB). Great Blue Heron: 7 July (1) BL (HEP), only report. Common Egret: 28 June (1) RL (MCW). Yellow-crowned Night Heron: 20 June through 27 July (1) BL (HEP). Blue-winged Teal: no reports. Wood Duck: three successful broods at RL (MCW) and one at 2 Jays (HEP). Lesser Scaup: 5, 7 June (2) BL (HEP). American Coot: 7 June (21) to 20 June (2) BL (HEP), and 16 June (2) RL (MB). American Woodcock: 2, 9, 23 July (1) 2 Jays (HEP). Upland Plover: 3, 10 Aug. (1) NA (LC). Spotted Sandpiper: 14 July (1) BL (HEP); only shorebird report for the period. Forster's Tern: 8 Aug. (1) and 31 Aug. (4) BL (HEP). Black Tern: 31 Aug. (1) BL (HEP).

Goatsuckers-Wrens: Whip-poor-will: 9 July nest with (2) eggs BS (KAG), one hatched 12 July, the other 14 July. Common Nighthawk: 30 Aug. a migration flock of (18) HV (MCW). Yellow-bellied Flycatcher: 17 Aug. (1) banded (KAG). Traill's Flycatcher: 27 Aug. (1) banded BS (KAG). Least Flycatcher: 28 Aug. (1) banded BS (KAG). Barn Swallow: seemed to have disappeared by late July. Purple Martin: 19 Aug. a migrating flock of (25) SHV (KAG), only report after 27 July. House Wren: four successful nests reported, one being of (7) young banded 2 Aug. HL (KAG). Bewick's Wren: only two reports, one being a pair with (4) fledged young 9 July CP (HCM).

Thrushes-Sparrows: Robin: below average numbers all summer. Wood Thrush: very scarce. Starling; numbers well below normal. Black-throated Green Warbler: 9 July (1) BS (MB, KAG). Northern Waterthrush: 20 Aug. (1) banded BS (KAG). Louisiana Waterthrush: 31 Aug. (1) banded 2 Jay's (MB), 10 days earliest ever, recaptured 2 Sept. Baltimore Oriole: 10 June (1) 2 Jay's (HEP). Blue Grosbeak: 24 June (1) PCR (HCM, HEP), 25 June (1) SHV (HCM, HEP), 31 July pair with (1) fledged young RL (ARL, KAG, MB), 29 Aug. (3) RL (MCW). Dickcissel: no reports.

Locations: BL—Bush Lake, BS—Basin Springs, CP—Centennial Park, HV—Hillsboro Village, HL—Hopkins Lane, NA—Nashville Metro Airport, PCR—Poplar Creek Road, RL—Radnor Lake, SHV—South Harpeth Valley, 2 Jays'—Two Jays' Sanctuary.

Observers: MB—Mike Bierly, LC—Lula Coffey, KAG—Katherine A. Goodpasture, ARL—Amelia R. Laskey, HCM—Harry C. Monk, HEP—Henry E. Parmer, MCW—Mary C. Wood.

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CHATTANOOGA—*Grebes-Ducks*: Pied-billed Grebe: 30 July (1) HCP (JD), 21 Aug. (1) CL (KD), 27 Aug. (4) SB (JD, MC *et al.*). Great Blue Heron: 19 June (1) TRG, increasing in July and August at HRA and SB, max. 7 Aug. (12). Little Blue Heron: regular at SB after 18 July, max. 21 Aug. (5). Common Egret: regular at HRA from 7 Aug., max. 14 Aug. (27). Yellow-crowned Night Heron: apparently, AM and MB each had a nesting pair; first immatures appearing 13 June. Least Bittern: nested AM. American Bittern: one regular at AM till 19 June, 5 June (2) (KD). Mallard: 12, 13 June (1) AM; none noted elsewhere except at HCP, max. (25). Green-winged Teal: 14 Aug. (1) AM (KD). Blue-winged Teal: last spring record 5 June (1) AM (KD); first fall record 14 Aug. (1) AM (KD) and scattered numbers to end of period; max. 27 Aug. (66) HRA, SB (JD, MC *et al.*). Wood Duck: regular and after nesting scattered flocks to (34).

Vultures-Plovers: Turkey Vulture: appeared to be in reduced numbers during June, increasing in August; max. (4). Black Vulture: 31 July (1) HRA (KD). Cooper's Hawk: four singles in Aug. Red-tailed Hawk: regular in Aug. Red-shouldered Hawk: pair regular at MB during June (KD). Broad-winged Hawk: found in TRG during nesting season, other locations since. Marsh Hawk: 27 Aug. (1) HRA (JD, MC *et al.*). King Rail: nested at AM. Purple Gallinule: 5 June (1), 3 July (1), 22 July (2) AM (JD, KD). American Coot: six records during period; max. 5 June (3) (JD, KD). Semipalmated Plover: regular after 9 Aug. max. (3).

Sandpipers-Terns: Spotted Sandpiper: regular after 17 July. Solitary Sandpiper: regular after 17 July. Greater Yellowlegs: 7, 21, 27 Aug. (1). Lesser Yellowlegs: regular after 13 Aug., max. (10). Pectoral Sandpiper: regular after 22 July, max. (65). Least Sandpiper: regular after 28 July, max. (62). Dowitcher: 21 Aug. (6), 22 Aug. (15), 23 Aug. (5), 27 Aug. (12), 28 Aug. (7) HRA or SB (JD, KD, MC *et al.*). Stilt Sandpiper: 27 Aug. (11) SB (JD, MC *et al.*); leisure study with other shorebirds and using a 20x scope at about fifty feet with good light. Semipalmated Sandpiper: 14 Aug. (4), 21 Aug. (2), 27 Aug. (1). Forster's Tern: 21 Aug. (4), 27 Aug. (3), 28, 29 Aug. (1) (JD, KD, MC *et al.*). Common Tern: 27 Aug. (2) SB (MC, JD *et al.*). Least Tern: 13 Aug. (2) SB (MC), 27 Aug. (2) SB (MC, PD *et al.*). Caspian Tern: 27 Aug. (1) SB (MC, JD *et al.*). Black Tern: regular and conspicuous at many areas from 24 July (3) to 27 Aug. (75); max. (97), (MC, JD, KD *et al.*).

Goatsucker-Sparrows: Chuck-will's-widow: 28 Aug. (1) dead on road HRA (KD). Tree Swallow: 24 July (1), 16 Aug. (1), 21 Aug. (1). Bank Swallow: 19 July (1) SB; regular from 24 July (750) to 28 Aug. (50) HRA; the usual counts varied between 150-200 (KD). Rough-winged Swallow: occasional to 24 July (1). Barn Swallow: most departed by middle of August. Purple Martin: most left after end of July. Short-billed Marsh Wren: 16, 21 Aug. SB (KD). Cerulean Warbler: 19 June (2) TRG (KD). Bobolink: 9 Aug. (30) AM (JD). Orchard Oriole: late nesting; one young departing 25 July, remainder 26 July (AW); upon the termination of the nesting season, flocks ranging from (2) to (14) individuals could consistently be found at SB, MB and HRA till 23 Aug. (KD); conditions were similar to those described in THE MIGRANT (1966: 37, 49). Bachman's Sparrow: 20 Aug. (1) NDA (MC).

Locations: AM—Amnicola Marsh, CL—Chickamauga Lake, HCP—Hamilton County Park, HRA—Hiwassee River Area, MB—Mocassin Bend, NDA—Nickajack Dam Area, SB—Savannah Bay, TRG—Tennessee River Gorge.

Observers: MC—Maxine Crownover, JD—Jon DeVore, AW—Adele West.

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KNOXVILLE—Common Scoter: (1) Cardwell's Lake to 14 June. Woodcock: (1) and Mourning Warbler: (1), both at Cherokee Farm 1 June (Fred Alsop).

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BRISTOL—*Loons-Dickcissels*: Common Loon: 3 June (2) SHL (WC, RS), latest record ever. Pied-billed Grebe: 5 June (1) AS (WC, HW), very late. Least Bittern: 3 June (1) AS (WC, RS), first known area record. Sparrow Hawk: 3 June (1) SHL, 5 June (1) AW. American Coot: 3 June (2) AS (WC, RS), 5 June (1) AS (WC, HW), very late. Spotted Sandpiper: 3 June (1) SHL (WC, RS), 3 June (2) AS (WC, RS). Lesser Yellowlegs: 3 June (1) AS (WC, RS), 5 June (1) AS (WC, RS) late. Black Tern: 19 Aug. (26) BC (CS). Chuck-will's-widow: 21 June (1) SHL (WC). Hairy Woodpecker: 5 June (1) AW. Traill's Flycatcher: 5 June (2) AS (WC, RS) first known Washington County record. Cedar Waxwing: 18 June (1), 19 June (2) SHL, 20 June (3) SHL. Cardinal: 8 Aug. (nest building), 14 Aug. (1 egg in nest) (WC). Dickcissel: 3 June (nest, 3 eggs; 2 adult males, 1 female) TCA (WC, RS), 2 July (1) AV (WC).

Locations: AS—Austin Springs, Washington Co., Tenn.; AV—Abingdon, Va.; AW—Allison Woods, Piney Flats; BC—Bluff City, Tenn.; SHL—South Holston Lake, Tenn.; TCA—Tri-Cities Airport.

Observers: JA—Judith Abbott, WC—Wallace Coffey, CS—Charles Smith, RS—Roger Stone, EV—Enno vanGelder, HW—Hank Woodward.

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ELIZABETHTON—*Grebes-Sandpipers*: Pied-billed Grebe: 18 June (1) WP (GD, HD). Great Blue Heron: 5 July (1) AS, 30 July (3) AS. Common Egret: 3-10 July (1) VA (WAB, HD, CRS), 30 July (1) AS, 31 Aug. (1) AS. Shoveler: 5 July (1 male) AS (CRS). Wood Duck: 5 July (11) AS. Black Vulture: 21 June (1). Red-tailed Hawk: 23 July (1), 13 Aug. (1). Red-shouldered Hawk: 25 Aug. (1). Broad-winged Hawk: 16 July (1), 23 July (2), 13 Aug. (1). Ruffed Grouse: throughout June; no records for July and Aug. American Coot: 18 June (1) WP (GD, HD). American Woodcock; 30 July (1) AS (WAB, CRS). Spotted Sandpiper: 19 Aug. (1) AS. Solitary Sandpiper: 19 Aug. (2) AS. Least Sandpiper: 31 Aug. (1) AS (WC, LRH, CRS). Semipalmated Sandpiper: 31 Aug. (1) AS (WC, LRH, CRS).

Cuckoos-Sparrows: Black-billed Cuckoo: 8 June (1), 4 July (1), 31 Aug. (1). Chuck-will's-widow: last 11 July (1) MC. Whip-poor-will: 21 June (45) HM, last 23 July (1) Red-headed Woodpecker: throughout the period near ETS (HD *et al.*). Purple Martin: last 3 Aug. (1). Common Raven: throughout the period on RM and other high mountains in the area (FWB). White-breasted Nuthatch: very scarce. Red-breasted Nuthatch: small numbers on RM throughout the period (FWB). Bewick's Wren: 11 June (1), 23 July (7: 2 adults and 5 young out of the nest) PM, 20 Aug. (1). Robin: 29 Aug. (flock of 50). Veery: throughout the period on RM (FWB). Bobolink: 30 Aug. (2) EGC (LRH). Blue Grosbeak: 9 July (1), 16 July (2). 30 July (1). Vesper Sparrow: throughout the period at high elevations (FWB).

Locations: AS—Austin Springs Area of Boone Lake, EGC— Elizabethton Golf Course, ETS—East Tennessee State University, HM—Holston Mountain Whip-poor-will Foray, MC—Milligan College, PM—Pond Mountain, RM—Roan Mountain, VA—Veterans' Administration, Johnson City, WP—Warriors' Path State Park.

Observers: FWB—Fred W. Behrend, WAB—William A. Bridgforth, Jr., WC—Wallace Coffey, GD—Mrs. George Dove, HD—Mrs. Harold Dillenbeck, LRH—Lee R. Herndon, CRS—Charles R. Smith.

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WINTER FEEDING HABITS OF THE CAROLINA CHICKADEE

(Parus carolinensis)

By Gary O. Wallace

The objective of this investigation was to study the winter feeding activities of the Carolina Chickadee (*Parus carolinensis*). This is the time of year when competition for food is probably most severe.

The study was conducted on the University of Tennessee Cherokee Farm, which is located about one mile south of Knoxville. It contains 134 acres with the elevation varying from around 900 to 1200 feet. There is a great diversity of habitat on the study area consisting of pastured fields, open pastured woodlands, dense unpastured woodlands in which a remnant of the original forest still remains (Shanks and Norris, 1950), and a small swampy area. Oaks are by far the predominant tree species on the study area. The following five species of oaks were the most common: *Quercus alba, Q. prinus, Q. rubra, Q. coccinea,* and *Q. velutina.*

PROCEDURE

The study was carried out from December 1963 through March 1964 with field observations being the only means used to collect data. A record of the field observations on the feeding habits of the Carolina Chickadee was made by using the following system. An arbitrary rule was adopted that as long as a bird remained in one tree, shrub, herb, or on the ground without flying only one record was made. This is much the same system Hartley (1953) used in his study of five species of titmice in England. This system tends to overemphasize shrubs and herbs due to the rapid succession of visits that may be made compared with large trees where birds may feed for some time on the various branches and twigs of each tree.

In trees and larger shrubs the feeding sites were divided into the trunk, limbs (more than five inches in diameter), branches (from one-half inch to five inches in diameter), twigs (less than one-half inch in diameter), foliage, and fruits; records were also made of ground feeding.

The heights of the feeding activities were determined by estimation. The estimates were checked from time to time by the use of a Blume-Leiss altimeter. A check on the estimated heights showed that on the average they differed from the measured heights by plus or minus 13 per cent. The heights and feeding sites of the birds were recorded where the bird was first seen in an apparent search for food or actually feeding.

OBSERVATIONS

With its acrobatic ability, the chickadee is able to reach almost inaccessible spots. Food is gleaned from the bark of twigs, branches, and trunks of trees or from their foliage, fruits and flowers.

The chickadees rarely stayed on the ground for any length of time. They would pick up a food item and fly to a perch above the ground. Smith (1967) reported very little ground feeding by the Black-capped Chickadee (*Parus atricapillus*) and no ground feeding by the Chestnut-backed Chickadee (*Parus rufescens*).

Carolina Chickadees were also seen feeding on the stems and tops of weeds. They would peck on the weed stem in a woodpecker-like manner. This was presumably to dislodge pieces of cuticle with insect eggs or to break through into the center of the stem to search for larvae and pupae (Odum, 1942 and Brewer, 1963). During the winter almost all of the weed-feeding time was spent on Tickweed (*Verbesina virginica*).

The use of various plant species by the Carolina Chickadee is shown in Table 1. During December and January, about 50 per cent of the feeding observations was in pines (*Pinus* spp.) and in Tulip Poplar (*Liriodendron tulipifera*). In the pines they fed mostly on twigs and pine cones while much of the feeding in Tulip Poplar apparently involved the ingestion of poplar seeds. They gleaned the bark of oak twigs, branches, limbs, trunks and the bark of shrubs apparently for insect food and lodged seeds. Weed seeds (mostly *V. virginica*) were also commonly eaten. Odum (1942) reported that hemlock seeds were a large item in the fall and winter diet of the Black-capped Chickadee. He also states that feeding on the seeds of herbs took place mainly in October and November. Tanner (1952) reported that seeds were occasionally eaten by the Black-capped and Carolina Chickadees. In this study I saw chickadees eat the berries of Poison Ivy (*Rhus radicans*) quite often in December. In general observations during the fall of 1963, chickadees were seen to eat the berries of the Virginia Creeper (*Parthenocissus quinquefolia*) and Japanese Honeysuckle (*Lonicera japonica*). Throughout the winter the chickadees were seen to peck into pieces of walnuts and hickory nuts that had previously been opened probably by squirrels. They would pick these food items up off of the ground and generally fly up to a low branch. Here they would pin the food item to the branch with their feet while pecking in it with their bill.

The proportion of chickadees feeding in pines, Tulip Poplar, oaks and shrubs decreased slightly in February, but at the same time they almost doubled the frequency of feeding in elms (*Ulmus* spp.). This increased feeding in elms probably was due to the elms beginning to flower in the latter part of February. During March chickadees were feeding only 10 per cent in pines with almost no feeding in Tulip Poplar. What little there was in Tulip Poplar was mostly on twigs and branches. To compensate for the decreased feeding in pines and Tulip Poplar, there was a big increase in feeding in oaks (25 per cent), elms (16 per cent), and shrubs (23 per cent). It seems that they may show some selectivity toward foods and were constantly changing their feeding habits to feed on temporarily abundant foods. Gibb (1954) reported the same type of behavior for titmice in England.

TABLE 1

Utilization of Plant Species by Carolina Chickadees

Plant species	*December*		*January*		*February*		*March*	
	Number	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*	*Number*	*cent Per*
Pinus spp.	18	27	122	26	104	19	23	10
Liriodendron tulipifera	16	24	110	24	109	20	4	2
Quercus spp.	7	10	57	12	66	12	56	25
Ulmus spp.	1	2	25	5	56	10	35	16
Carya spp.	1	2	5	1	23	4	11	5
Fagus grandifolia	0	0	9	2	15	3	0	0
Juglans nigra	1	2	5	1	10	2	0	0
Cornus florida	1	2	8	2	6	1	3	1
Acer spp.	2	3	0	0	6	1	8	4
Celtis spp.	1	2	1	0	5	1	5	2
Robinia pseudoacacia	2	3	4	1	2	0	0	0
Oxydendrum arboreum	4	6	3	1	0	0	0	0
Shrubs	2	3	56	12	55	10	52	23
Vines	4	6	21	5	36	6	3	1
Weeds	3	4	16	3	28	5	8	4
Dead snags	0	0	0	0	5	1	2	1
Others	3	4	24	5	31	5	13	6
Totals	66	100	466	100	557	100	223	100

TABLE 2

Chickadees (in feet)
Feeding Heights Above Ground of Carolina

Height	*December*	*January*	*February*	*March*
0-9	19%	18%	23%	25%
10-19	16	19	19	21
20-29	22	18	17	19
30-39	16	10	15	15
40-49	8	15	11	13
50-59	5	11	8	5
60-69	11	6	4	2
70-up	3	3	3	0

During December, chickadees foraged below 20 feet 35 per cent of the time (Table 2). There was a small but progressive increase in feeding below 20 feet during January, February and March. In March the chickadees foraged below 20 feet 46 per cent. This increased feeding at low levels reflects an increase in feeding in shrubs (Table 1).

The feeding sites that the chickadees spent the greatest amount of time on during January and February were branches, twigs and seeds (Table 3). In March the per cent of time feeding on twigs almost doubled. It jumped from 27 per cent in February to 50 per cent in March. There was a corresponding decrease in seed feeding. This increased feeding on twigs in March probably was due to the opening of the young buds and the insects that collected around the buds as the weather became warmer. Odum (1942) reported that Black-

TABLE 3
Feeding Sites of the Carolina Chickadees

	January		*February*		*March*		*Combined data*	
Feeding site	*Number*	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*
Trunk	29	10	44	10	6	4	79	8
Limb	24	8	12	3	4	2	40	4
Branch	79	26	115	25	49	29	243	26
Twig	79	26	124	27	84	50	287	31
Fruit	71	23	125	27	5	3	201	22
Foliage	18	6	7	1	1	1	26	3
Ground	4	1	30	7	18	11	52	6
Totals	304	100	457	100	167	100	928	100

capped Chickadees foraged more on seeds and twigs during winter. Brewer (1963) found that both the Black-capped and Carolina Chickadees spent a greater per cent of time foraging on small rather than large branches the year round.

SUMMARY

There seems to be a succession of foods available to the chickadees throughout the winter. Apparently they show some selectivity toward foods and from time to time change their feeding habits to forage on temporarily abundant foods.

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T.O.S. STATE MEETING

COOKEVILLE, TENNESSEE

MAY 10 - 11 - 12, 1968

THE 1967 CHRISTMAS SEASON BIRD COUNT

By TOS Members and Guests

The thirty-eighth annual Christmas Season Bird Count listed 120 species. This exceeds last year's count by one species and ranks third among the higher counts for the state. The largest number of species recorded on our Christmas Census occurred in 1965 with 130 species observed throughout the state. The years 1954, 1955, and 1960 each produced 122 species. No species which had not been previously observed on Christmas Counts in the state was recorded this year.

Northern finches were noticeably absent from most areas on this year's count. Only The Smokies reported Evening Grosbeak, Pine Siskin, and Red Crossbill; however, the Purple Finch was fairly well distributed across the state. The relative mild weather, with little or no snow, may have resulted in the late presence of such species as the House Wren, Catbird, and Palm Warbler, which were noted on this count. Other species of interest include the Black-crowned Night Heron, Greater Scaup, Harlan's Hawk, and Long-eared Owl. All species of owls which have occurred within the state, with exception of the Saw-whet and Snowy, were reported on this count.

INFORMATION ON THE COUNTS

Fourteen areas, including one high altitude area, conducted counts this year. In the table and information which follow, the areas are listed in order of their occurrence from west to east. Because of its brevity, the one high altitude count is described fully, with a list of species observed, in its appropriate place. Information on unusual species should be found under the area headings where they occurred. The list of species in the table is an AOU Check-list order in conformation with the fifth *AOU Check-list of North American Birds.*

MEMPHIS—Roughly 1953 areas; wooded bottomlands 30%, deciduous woods, city parks and cemeteries 28%, pastures, bare fields 15%, suburban roadsides 25%, river edge 2%. 23 Dec., 6:45 a.m. to 5 p.m.; clear; temp. 21° to 37°F; wind NNW 0-13 mph; 20 observers in 9 parties. Total party-hours 80 (60 on foot, 20 by car); total party-miles 171 (56 on foot, 115 by car). Harlan's Hawk (LC), LeConte's Sparrow (BC). Seen in area, count period, but not on count day: Redhead 2, Turkey Vulture 1, Water Pipit 37, Western Meadowlark 2. Mr. and Mrs. Ben B. Coffey, Jr. (compilers), Mr. and Mrs. Henry Dinkelspiel, Jack Embury, Earl J. Fuller, Billy C. Grimm, Robert Holt, Lee R. Johnson, Edward M. King, Robert W. McGowan, Chas. McPherson, Bob Moore, Nelle More, Mrs. Paul C. Owen, Alice Smith, Dr. and Mrs. Arlo I. Smith, Mrs. M. L. Torti, Mr. and Mrs. Chas. Wilmeth, Dr. Lyndal York.

REELFOOT LAKE—36° 25' N, 89° 23' W (all points within a 15-mile diameter circle, centering at a point in Reelfoot Lake on the west side of Starve Pond, extending northward to the north end of Lake 9 in Kentucky, eastward to bridge on South Reelfoot Creek near Protemus and to the town of Hornbeak, southward to the north end of Lake Isom refuge, westward to Mississippi River; deciduous woods 30%, fields, pastures 50%, lakes, swamps 10% river 5%, towns 5%. 30 Dec., 6:00 a.m. to 5:00 p.m.; cloudy all day; temp. 20° to 32°; wind NE-E, 5 to 15 mph; lake frozen over and mostly inaccessible.

THE 1967 CHRISTMAS SEASON BIRD COUNTS

	Memphis	Reelfoot	Savannah	Columbia	Nashville	Lebanon	Cookeville	Chattanooga	Hiwassee	Knoxville	GSMNP	Elizabethton	Bristol
Common Loon	--	--	10	--	--	--	--	--	--	--	--	1	10
Horned Grebe	--	--	6	--	--	--	--	5	--	--	--	2	12
Pied-billed Grebe	3	2	20	9	3	--	--	3	--	--	--	1	7
Double-crested Cormorant	--	--	--	--	--	--	--	--	--	1	--	--	--
Great Blue Heron	--	4	--	14	--	101	--	1	11	2	--	1	7
Black-crowned Night Heron	--	--	--	--	--	--	--	--	1	--	--	--	--
Canada Goose	--	2,476	--	--	--	--	--	2	1,211	--	--	--	--
Blue Goose	1	--	--	--	--	--	--	--	1	--	--	--	--
Mallard	22	267	--	67	1	10,600	--	92	191	1	--	26	93
Black Duck	--	10	--	28	--	1,300	--	105	205	--	--	--	139
Gadwall	9	12	--	--	--	--	--	198	--	26	--	--	1
Pintail	--	13	--	1	--	200	--	--	10	--	--	--	--
Green-winged Teal	--	--	--	7	--	400	--	2	2	--	--	--	--
Blue-winged Teal	--	--	--	--	--	200	--	--	--	--	--	--	--
American Widgeon	--	10	--	29	--	--	--	2	250	--	--	--	--
Shoveler	--	--	--	12	--	--	--	--	--	--	--	--	--
Wood Duck	6	6	2	2	--	--	--	7	--	--	--	--	--
Redhead	--	--	--	2	--	500	--	--	--	--	--	--	1
Ring-necked Duck	69	1	--	68	21	--	--	2	12	1	--	2	--
Canvasback	--	--	--	2	8	--	--	--	--	--	--	--	--
Greater Scaup	--	--	--	--	--	--	--	3	--	--	--	--	--
Lesser Scaup	--	8	--	12	19	--	--	--	18	--	--	7	--
Common Goldeneye	2	2	12	--	15	--	--	9	10	1	--	1	--
Bufflehead	--	--	22	--	--	--	--	--	80	1	--	68	6
Ruddy Duck	--	--	--	--	--	--	--	--	--	--	--	--	3
Hooded Merganser	--	13	--	1	--	--	--	--	1	5	--	1	--
Common Merganser	--	--	--	--	--	--	--	--	--	1	--	--	--
Turkey Vulture	--	--	--	--	2	--	1	--	2	--	--	--	26
Black Vulture	--	18	--	9	1	--	--	--	--	--	--	--	48
Sharp-shinned Hawk	--	--	--	--	2	--	--	--	--	--	1	--	--
Cooper's Hawk	--	2	--	--	1	--	--	--	1	--	--	--	--
Red-tailed Hawk	32	22	1	9	12	1	4	7	2	13	4	--	2
Harlan's Hawk	1	--	--	--	--	--	--	--	--	--	--	--	--
Red-shouldered Hawk	1	7	3	2	1	--	--	1	--	--	--	--	--
Bald Eagle	--	36	--	--	--	--	--	--	2	--	--	--	--
Marsh Hawk	2	9	2	2	--	--	--	--	--	--	--	--	--
Sparrow Hawk	12	13	2	10	41	--	7	4	1	8	5	4	13
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	3	--	--
Bobwhite	104	--	2	31	54	15	25	60	13	75	61	5	9
Turkey	2	--	--	--	--	--	--	--	--	--	--	--	--
American Coot	1	93	198	650	101	--	--	176	--	--			

	Memphis	Reelfoot	Savannah	Columbia	Nashville	Lebanon	Cookeville	Chattanooga	Hiwassee	Knoxville	GSMNP	Elizabethton	Bristol
Killdeer	54	2	1	6	33	1	4	16	83	78	47	8	22
American Woodcock	1	--	5	--	--	--	--	1	--	--	--	--	--
Common Snipe	26	2	2	14	--	--	1	21	2	21	3	7	1
Spotted Sandpiper	--	--	1	--	--	--	--	--	--	--	--	--	--
Dunlin	--	--	--	--	--	--	--	--	40	--	--	--	--
Herring Gull	--	--	--	--	--	1	--	16	1	2	--	--	7
Ring-billed Gull	60	215	3	--	--	--	--	67	6	355	--	--	15
Mourning Dove	188	99	114	254	140	52	130	202	48	207	162	12	78
Barn Owl	--	--	--	--	--	--	--	1	--	--	--	--	--
Screech Owl	--	--	1	--	1	--	--	2	--	2	--	3	3
Great Horned Owl	--	1	--	2	2	--	--	1	2	3	1	--	--
Barred Owl	4	3	--	--	--	1	--	--	1	--	--	--	--
Long-eared Owl	--	--	--	--	--	--	--	1	--	--	--	--	--
Short-eared Owl	1	--	--	--	--	--	--	--	--	--	--	--	--
Belted Kingfisher	2	4	1	11	11	1	--	11	4	14	21	6	12
Yellow-shafted Flicker	202	49	19	19	63	5	15	44	5	38	9	3	3
Pileated Woodpecker	16	15	9	12	33	1	3	7	3	6	25	5	6
Red-bellied Woodpecker	73	58	12	28	99	6	10	24	3	21	5	2	2
Red-headed Woodpecker	15	14	1	--	7	1	1	1	1	4	--	1	--
Yellow-bellied Sapsucker	40	10	3	14	32	2	1	7	--	10	19	--	2
Hairy Woodpecker	24	8	1	7	12	1	6	4	--	5	16	1	2
Downy Woodpecker	64	24	12	31	68	5	14	15	--	33	31	19	5
Eastern Phoebe	--	--	1	1	3	--	--	--	1	1	11	1	1
Horned Lark	98	21	--	3	79	50	--	12	2	8	5	1	93
Blue Jay	328	66	47	35	219	79	104	280	24	156	57	57	68
Common Raven	--	--	--	--	--	--	--	--	--	--	7	--	--
Common Crow	43	791	52	90	1,264	49	72	428	32	976	344	226	479
Fish Crow	172	3	--	--	--	--	--	--	--	--	--	--	--
Black-capped Chickadee	--	--	--	--	--	--	--	--	--	--	(211	--	--
Carolina Chickadee	196	81	16	80	189	29	24	74	8	139	(	40	51
Tufted Titmouse	55	45	16	41	143	37	47	111	5	60	--	24	18
White-breasted Nuthatch	1	6	2	--	4	--	9	8	--	1	6	1	3
Red-breasted Nuthatch	--	--	--	--	--	--	--	4	--	--	11	--	--
Brown Creeper	4	3	--	--	9	--	2	2	--	11	14	1	1
House Wren	1	--	--	--	--	--	--	--	--	--	--	--	--
Winter Wren	10	1	2	1	1	--	--	--	--	5	18	1	1
Bewick's Wren	--	2	3	2	4	3	6	--	--	--	--	--	--
Carolina Wren	133	46	17	19	54	8	14	36	7	54	32	22	15
Mockingbird	169	30	7	21	177	35	18	159	12	154	22	32	42
Catbird	--	--	--	--	--	--	--	--	--	--	2	--	--

	Memphis	Roelfoot	Savannah	Columbia	Nashville	Lebanon	Cookeville	Chattanooga	Hiwassee	Knoxville	GSMNP	Elizabethton	Bristol
Brown Thrasher	15	1	--	--	3	4	8	17	1	--	1	--	--
Robin	3,332	6	23	5,000	9,562	1,000,000*	136	243	16	89	337	45	9
Hermit Thrush	22	6	4	1	1	1	--	3	--	1	3	--	1
Eastern Bluebird	8	1	5	17	72	11	12	24	9	11	24	1	3
Golden-crowned Kinglet	56	5	10	--	5	--	4	23	12	174	165	20	23
Ruby-crowned Kinglet	94	4	5	1	5	--	--	10	7	10	41	3	5
Water Pipit	--	--	--	--	--	--	--	1	6	--	--	--	--
Cedar Waxwing	51	--	54	32	119	28	18	15	--	86	87	36	44
Logger-head Shrike	19	25	3	9	39	1	4	8	1	8	13	3	12
Starling	8,568	5,150	160	30,000	9,440	423	970	2,756	240	1,890	557	891	2,313
Myrtle Warbler	183	--	10	14	66	--	--	20	7	85	23	43	12
Pine Warbler	--	--	--	--	--	--	--	1	--	1	--	--	--
Palm Warbler	--	--	--	--	--	--	--	3	--	--	8	--	--
House Sparrow	496	522	10	250	218	333	262	260	1	127	109	164	109
Eastern Meadowlark	248	116	25	85	343	150	42	260	9	190	181	9	351
Redwinged Blackbird	4,520	520,000	375	602	58	5	2	1,045	56	38	18	--	20
Rusty Blackbird	32	--	200	143	29	--	26	171	--	50	3	--	24
Brewer's Blackbird	30	--	--	--	--	--	--	--	--	--	--	--	--
Common Grackle	8,372	70,000	420	50,000	32,039	33	6,768	127	--	13	12	9	9
Brown-headed Cowbird	2,737	70,000	--	200	25	--	7	58	25	20	--	--	39
Cardinal	606	188	58	105	426	213	136	389	19	256	138	151	112
Evening Grosbeak	--	--	--	--	--	--	--	--	--	--	7	--	--
Purple Finch	24	--	3	1	24	1	26	35	25	55	23	--	--
Pine Siskin	--	--	--	--	--	--	--	--	--	--	26	--	--
American Goldfinch	133	42	206	28	211	--	6	165	26	187	156	53	78
Red Crossbill	--	--	--	--	--	--	--	--	--	--	5	--	--
Rufous-sided Towhee	78	2	84	74	92	16	76	116	9	77	31	33	11
Savannah Sparrow	62	6	--	16	5	--	--	3	10	2	--	--	--
Le Conte's Sparrow	1	--	--	--	--	--	--	--	--	--	--	--	--
Vesper Sparrow	--	1	--	--	--	--	--	9	--	--	--	--	--
Slate-colored Junco	958	230	184	32	693	76	32	406	24	102	246	53	121
Tree Sparrow	--	1	--	--	--	--	--	--	--	--	--	--	--
Chipping Sparrow	--	--	4	--	--	--	2	8	--	--	--	--	--
Field Sparrow	272	68	23	31	559	12	51	337	38	166	129	61	126
White-crowned Sparrow	38	24	--	31	23	30	10	17	2	2	--	3	4
White-throated Sparrow	1,003	119	137	41	145	11	76	263	47	205	273	61	39
Fox Sparrow	146	3	1	3	6	--	1	7	--	--	1	--	2
Swamp Sparrow	138	173	21	35	18	--	--	44	18	9	23	2	1
Song Sparrow	335	95	22	47	226	4	18	102	27	116	150	55	56
Total Individuals	34,824	671,527	2,675	88,457	57,381	1,014,986	9,211	9,182	2,949	6,486	3,943	2,288	4,831
TOTAL SPECIES	72	73	62	68	67	48	47	80	65	66	59	54	64

* Estimate

14 observers in 5 parties, total party-hours 43 (15 on foot, 28 by car); total party-miles 223 (14 on foot, 209 by car). Jack Clemmons, Evelyn Cole, Eugene Cypert (compiler), Mary Louise Cypert, Druey E. Davis, John L. DeLime, William C. Kemp, Edwin Larson, Janice Leggett, Kenneth Leggett, Clell T. Peterson, Arlo Smith, Noreen Smith, Bettie Sumara.

SAVANNAH—20 Dec., 6 a.m. to 6 p.m.; Savannah, Harbert Hills Academy, Pickwick Dam, within a 15-mile diameter circle centered 6 miles SE of Savannah courthouse; fog and scattered showers all day; temp. 60° to 65°, no wind; widespread flooding may have scattered the ducks. The Spotted Sandpiper was at the same location as our 18 Feb. 1967 and 23 Nov. 1967 sightings. It landed about thirty feet from our party. Mike Barber, David Patterson (compiler), Mike Patterson.

COLUMBIA—30 Dec., 8 a.m. to 6 p.m.; same area as in previous years, center 1 mile West of Zion Church. Temp. 24° to 34°; low overcast, poor visability, some ponds frozen, patches of snow on ground; wind NW 2-5 mph. William Dale, William Fuqua, Daniel Gray, Jr., Cleo Mayfield, Mrs. George Mayfield, Sr., George Mayfield, Jr. (compiler).

NASHVILLE—A 15-mile circle centered on the Harpeth River bridge over Tenn. Highway 100. Included were Radnor Lake, deciduous wooded hills 40%, fields and pastures 25%, riverbottom fields 20%, roadsides and suburban yards, including 10 feeding stations 15%. 30 Dec., 6:30 a.m. to 5:00 p.m.; temp. 18° to 20°; wind W 0-3 mph; overcast with most trees covered with frost, two inches of snow cover and small water areas frozen. 27 observers in 9 parties; party-hours 73 (35 on foot, 38 by car); party-miles 234 (37 on foot, 197 by car). Francis Abernathy, Mr. and Mrs. Wm. F. Bell, Sr., Mike Bierly, Ruth Castles, Annella Creech, Charles Dewitt, Milbrey Dugger, Mr. and Mrs. John O. Ellis, Erline Elmore, Pat Floyd, Albert F. Ganier, Katherine A. Goodpasture, Steve Greenfield, Ben Groce, Mrs. A. B. Herron, Mr. and Mrs. John S. Herbert, Louise Jackson, Harry C. Monk, Fanny Murphy, Henry E. Parmer (compiler), Jennie Riggs, Ellen Stringer, Lawrence O. Trabue, Mary Wood, Mr. and Mrs. George Woodring.

LEBANON—Noon 28 Dec. to noon 29 Dec.; all points within a 15-mile diameter circle, Lebanon square center, including Mt. Juliet, Canoe Branch Area, Lock 5 (Old Hickory Lake), Watertown and Bairds Mill Area. 20° to 30°, snow cover, heavy clouds until last two hours of count when sun came out, no wind of consequence, no precipitation. Doug Allen, J. M. Ashworth, Mrs. Thelma Bain, Mrs. Sidney Berry, Mrs. Winstead Bone, Jr., Mrs. Geo. Bouton, Bill Breedlove, Miss Margaret Campbell, Miss Martha Campbell, Mrs. Lewis Chambers, Mr. and Mrs. Clay Couch, Mrs. Robert Cox, Gordon Denney, Mrs. Carter Farris, Mrs. Mildred Gaston, Mrs. Sam Gilreath, Mrs. J. H. Hagan, A. C. Hill, Mrs. Roy Hobbs, Mary Horton, Dr. and Mrs. M. S. Howard, Mrs. Mary Howard, Mr. and Mrs. Paul S. Hunton, Mrs. Jerry McFarland, Mrs. Sam McFarland, Mrs. J. W. Lawrence, Mr. and Mrs. Dixon Merritt, Henry Oldfield, Mr. and Mrs. Byron Paul, Sam Swindell, Mrs. Spurgeon Thompson, Mr. and Mrs. Willie Taylor, Mrs. Phillips Turner, Mrs. Henry Waters (compiler), Mrs. William Welty, W. F. Young.

COOKEVILLE—29 Dec., 6:30 a.m. to 4:30 p.m.; areas included were within the 15-mile diameter circle of the town. Yard and garden space, open fields and woods, city-lake area, and swamp were represented. Six inches of snow; 29° to 34°; no wind; overcast in a.m. Dr. and Mrs. J. O. Cummins, Caprice Haile, R. D. High, Roy Hinds, Dr. Paul Hollister, Amy Johnson, Elizabeth Killeffer, Dr. and Mrs. Sidney L. McGee, Miser R. Richmond, Thelma Tinnon, F. R. Toline, Robert Toline, Chrissa Wendt, Marie White (compiler).

CHATTANOOGA—31 Dec., 5:15 a.m. to 6:15 p.m.; center of 15-mile diameter circle on the National Cemetery; fields and pastures 35%, woodlands 20%, ponds and lakes 15%, creeks and rivers 15%, roadsides 10%, and residential 5%. Heavy fog and light rain during the a.m., fog lifting with widely scattered light drizzle in the p.m.; the U. S. Weather Bureau at Lovell Field recorded 0.35 inches of precipitation for the day. Temp. 33° to 42°; wind NNW, 2-6 mph. 21 observers in 13 parties; total party-hours 81 (29 on foot, 52 by car); total party-miles 519 (41 on foot, 478 by car). The Greater Scaup were found by DeVore on Chickamauga Lake. The birds, all of which were adult males, were studied for thirty minutes with 20x and 32x scope. The general contour of the head, the extensive white on the sides, and the definite white wing stripe, extending nearly to the wing-tip, were easily noted as the birds fed and preened themselves. The Long-eared Owl was heard calling in a large pine-hardwood forest area adjacent to the Tyner Minnow Ponds swamp by DeVore. The characteristic single hoot, spaced at 2 to 5 second intervals, was heard from 6:05 a.m. to 6:45 a.m. Francis Barnwell, Hugh W. and Maxine Crownover, Jon E. DeVore (compiler), Kenneth H. Dubke, Edith Fenn, Dr. John R. and Charlotte Freeman, Howard and Mary Lou Meadors, Eugene and Eva Ranger, Theo L. Rogers, Veta Sliger, Doug and Mary Tunsberg, Jack Wagner, Mark Wagner, Adele and Gene West, Mrs. C. S. Wilcox.

HIWASSEE RIVER—19 Dec., 6:45 a.m. to 6:15 p.m.; center of 15-mile diameter circle on State Highway 58 bridge at the Hiwassee River; agricultural fields 30%, deciduous woods 30%, creeks and rivers 15%, residential areas 10%, roadside and weedy areas 10%, evergreen woods 5%. Area includes the Hiwassee Island State Waterfowl Refuge on the western edge of the circle and the Candies Creek Management Area to the eastern edge. Heavy fog and scattered light rain during the a.m., clearing with heavy scattered clouds in the p.m.; temp. 51° to 66°; wind SSW, 2-15 mph. Two observers in two parties; total party-hours 23 (17 on foot, 6 by car); total party-miles 236 (36 on foot, 200 by car). The Black-crowned Night Heron was found in heavy growth along the Hiwassee River at the State Highway 58 bridge. The bird was studied leisurely at 25 feet while it was perched in a bush and also when it was in flight. Jon E. DeVore (compiler), Kenneth H. Dubke.

KNOXVILLE—Same area as in previous years, in a 15-mile circle centered on Oak Ridge Hwy. at Third Creek: woods 18%, fields and pastures 24%, doadsides 34%, lake and streamsides 13%, suburbs 11%. 23 Dec., 6:30 a.m. to 6 p.m.; partly cloudy to clear; temp. 18° to 32°; wind zero to 10 mph. from north. 17 observers in 11 parties; total party-hours 95 (75 on foot, 20 by car); total party-miles 304 (53 on foot, 251 by car). The Double-crested Cormorant was found by J. T. Tanner on Fort Loudon Lake. J. M. Campbell, Danny Ellis, John Elson, Maurice Grigsby, J. C. Howell, Susan Hoyle, Janera Jones, Tony Koella, Chris McMillan, Mr. and Mrs. R. A. Monroe, Jane Orleans, Hollie Overton, Mabel Sanders, Boyd Sharp, Ed Smith, J. T. Tanner (compiler).

GREAT SMOKY MOUNTAINS NATIONAL PARK, TENN.-N. C.—30 Dec., 6:30 a.m. to 6:00 p.m.; 35° 40'N 83° 29'W. All points within a 15-mile diameter circle, centered on Bullhead to include US 441 Pigeon Forge to Kephart Prong; Tenn 73 Pittman Center to Metcalf Bottoms; Appalachian Trail Clingmans Dome to Newfound Gap; West and Middle Prongs Little Pigeon River; Little River; Emerts Cove; Wears Cove; Roaring Fork and LeConte Creek; Andrews Bald; pine-oak woods 30%, fields 20%, stream courses 20%, spruce-fir forests 25%, towns 5%. Temp. 20° to 44°; wind variable, 0-12 mph; clear to partly cloudy; 4-5 inches snow in highest elevations, no precipitation. Fred J. Alsop, III, James Campbell, Robert Dunbar, Danny Ellis, Lloyd Foster, Roger Foster, Maurice Grigsby, Dr. J. C. Howell, Miss Susan Hoyle, Tony Koella, Miss Helen K. Lewis, Henry Lix, David MacLeod, Mrs. George W. McGowan, Mr. and Mrs. Robert A. Monroe, Miss Julia Moore, Miss Louise Nunnally, Mrs. Earle Rankin, Mrs. E. T. Richards, Lynn Satterfield, Steve Satterfield, A. Boyd Sharp, Jr., Ed Smith, Arthur Stupka, Mrs. Arthur Stupka, Mrs. Maxie Swindell, Thomas Swindell, Dr. James T. Tanner, Richard C. Zani (compiler).

ELIZABETHTON—31 Dec., 7:00 a.m. to 5:00 p.m.; the same area was covered as in previous years. Light rain mixed with sleet and snow during a.m., turning to light rain in p.m.; 34° to 38°; wind light and variable. Total party-hours 38 (17 on foot, 21 by car); total party-miles 193 (16 on foot, 177 by car). Fred W. Behrend, Mr. and Mrs. John Bond, William A. Bridgforth, Jr., Ed Davidson, Mrs. Harold Dillenbeck, Joy Dillenbeck, Mr. and Mrs. C. W. Fairbanks, Dr. and Mrs. Lee R. Herndon, Roby D. May, Charles R. Smith (compiler).

BRISTOL, TENN.-VA.—All points within a 15-mile diameter circle, center at junction of U.S. 11 and Route 625, to include Bristol, South Holston Lake and river; fields and farmland 40%, mixed deciduous forest 25%, lakes and rivers 15%, towns and residence 10%, misc. 10%. 30 Dec., 7:05 a.m. to 5:45 p.m.; clear; temp. 16° to 40°; wind NE, 0-7 mph; trace of snow cover, waters mostly open. Nine observers in 4 parties; total party-hours 29½ (16 on foot, 11½ by care, 2 by boat); total party-miles 241 (16 on foot, 208 by car, 17 by boat). Judith Abbott, Fletcher Bingham, Wallace Coffey, Gerry Delantonas (compiler), David McPeak, Bob Quillen, William R. Senter, Enno vanGelder, Roger vanGelder.

ROAN MOUNTAIN, TENN.-N. C.—20 Dec., 7:30 a.m. to 5:00 p.m.; all points within a 15-mile diameter circle, center Carvers Gap, to include Round Bald, Balsam Road, Rhododendron Gardens (altitude range 5500-6250'); grass bald 15%, rhododendron, mountain alder, briar 5% balsam-spruce forest 50%, deforested balsam area 30%. Clear to partly cloudy with some fog; 45° to 55°; wind NW-W, 3-12 mph. Total party-hours, 9½ (all on foot); total party-miles 9 (all on foot). Fred W. Bahrend (observer and compiler). Ruffed Grouse (1), Blue Jay (3), Common Raven (2) Common Crow (2), Red-breasted Nuthatch (1), Winter Wren (1), Robin (73), Golden-crowned Kinglet (2), Cedar Waxwing (2), American Goldfinch (2), Slate-colored Junco (19). Total: 11 species, about 108 individuals.

THE SEASON

CHARLES R. SMITH, *Editor*

The months of September, October, and November brought variable weather conditions across the state. It was generally agreed that November was wetter than usual and that the average rainfall for September was slightly lower than usual in most areas. October experienced only a very slight increase in rainfall over that of September. Memphis reported "slightly above normal" temperatures during the report period. Both Nashville and Savannah reported that the weather was normal for the period, with little deviation in temperature and rainfall. East Tennessee experienced temperatures which were a little cooler than usual, based on U. S. Weather Bureau data.

The fall migration was not outstanding in most respects throughout the state. Movements of warblers and waterfowl were reported to be slow and not especially noticeable. No influx of northern finches has yet been noted; a few records are available from Roan Mountain in Upper East Tennessee. The Chattanooga area reported a good shorebird migration as evidenced by their report; however, Nashville reported that shorebirds were very few in number in that area.

Some outstanding observations within the state follow: White Pelican, Cattle Egret, Pigeon Hawk, Orange-crowned Warbler, and Western Meadowlark from Reelfoot; Yellow Rail, Connecticutt Warbler, and Mourning Warbler from Nashville; Greater Scaup from Chattanooga; American Avocet and Connecticutt Warbler from Elizabethton. Some very interesting records from neighboring states may also be found in the Memphis and Bristol reports. Details of these observations and others of interest may be found in their respective reports.

MEMPHIS—*Grebes-Shorebirds*: Horned Grebe: 29 Oct. (1) HLA (LC), 4 Nov. (1) LO (BC, MS), 5 Nov. (4) LA (BC), 12 Nov. (1) HLM (BC), 19 Nov. (3) HLA. White-fronted Goose: 15 Oct. (1) LA (DJ, BC). Pigeon Hawk: 4 Nov. (1) LO (BC, MS), American Golden Plover: 12 Nov. (2) LA (LC, BC). Baird's Sandpiper: 4 Nov. (3) LO (BC, MS). Least Sandpiper: 5 Nov. (8) PF, 12 Nov. (12) LVW. Dunlin: 19 Nov. (1) LA, (2) LW, (1) HLA all (BC). Dowitchers: none. Stilt Sandpiper: 29 Oct. (6) LA (LC, BC, AS), 4 Nov. (1) LO (BC, MS). Western Sandpiper: 12 Nov. (2) LA (BC). Avocet: 29 Oct. (1) LA (BC, LC, AS).

Swallows-Sparrows: Tree Swallow: 12 Nov. (3) HLA (BC, LC). Barn Swallow 12 Nov. (3) HLA (BC, LC). Sharp-tailed Sparrow: 12 Nov. (1) LVW (BC). Lapland Longspur: 12 Nov. (40), 19 Nov. (240), LA (LC, BC), 21 Nov. (3,000) SAB (BC, LC). Smith's Longspur: 12 Nov. (1) LVW (BC).

Locations: HLA— Horseshoe Lake, Ark.; HLM—Horn Lake, Miss. (the lake, not the town); LA—Lake Alpe, Booker, Ark.; LO—Lonoke, Ark.; LVW—Lakeview, Miss. (at Horn Lake and Walls); LW—Lake Waponocca, Turrell, Ark.; PF—Shelby County Penal Farm, Tenn.; PL—Porter Lake, Ark.; SAB—old AAF base, Stuttgart, Ark.

Observers: BC, LC—Mr. and Mrs. Ben B. Coffey, Jr., DJ—Douglas James, AS—Alice Smith, MS—Merit Skaggs, Willoughby, Ohio.

BEN B. COFFEY, JR., 672 North Belvedere, Memphis 38107.

REELFOOT—*Grebes-Mergansers*: Pied-billed Grebe: 29 Oct. (4) RL (EC). White Pelican: 22 Oct. (1) TF (BS). Great Blue Heron: 22 Oct. (2) RL (MEM). Cattle Egret: 28 Oct. (1) NT (WL). Canada Goose: 28 Sept. (19), 16 Nov. (5600) RL (REF). Snow Goose: 12 Oct. (1) RL, 30 Nov. (2) RL (REF). Blue Goose: 12 Oct. (1), 2 Nov. (3) RL (REF). Mallard: 14 Sept. (95), 16 Nov. (65,400) RL (REF). Black Duck: 19 Oct. (120), 16 Nov. (1050) RL (REF). Pintail: 21 Sept. (115), 2 Nov. (2900) RL (REF). Green-winged Teal: 26 Oct. (4400) RL (REF). Blue-winged Teal: 21 Sept. (5350), 16 Nov. (35) RL (REF). American Widgeon: 21 Sept. (45), 19 Oct. (24,600) RL (REF). Shoveler: 23 Nov. (3100) RL (REF). Wood Duck: 10 Oct. (4850) RL (REF). Redhead: 19 Oct. (10), 30 Nov. (80) RL (REF). Ring-necked Duck: 12 Oct. (65), 9 Nov. (13,200) RL (REF). Canvasback: 23 Nov. (75) RL (REF). Lesser Scaup: 19 Oct. (130) RL (REF). Common Goldeneye: 30 Nov. (70) RL (REF). Bufflehead: 30 Nov. (85) RL (REF). Ruddy Duck: 19 Oct. (300), 9 Nov. (650) RL (REF). Hooded Merganser: 30 Nov. (25) RL (REF). Common Merganser: 9 Nov. (20) RL (REF).

Hawks-Sparrows: Red-tailed Hawk: 22 Oct. (3) RL (MEM). Red-shouldered Hawk: 22 Oct. (1) RL (MEM). Bald Eagle: 29 Oct. (1) RL (EC). Marsh Hawk: 21 Oct. (4) RL (MEM). Pigeon Hawk: 22 Oct. (1) RL (MEM). American Coot: 14 Sept. (325), 2 Nov. (35,000) RL (REF). American Golden Plover: 21 Oct. (1) CT (BC, LC). Common Snipe: 22 Oct. (3) RL (MEM). Spotted Sandpiper: 21 Oct. (1) CT (BC). Least Sandpiper: 26 Oct. (6) RL (MEM). Yellow-billed Cuckoo: 22 Oct. (1) RL (MEM). Short-eared Owl: 21 Oct. (1) CT (BC). Common Nighthawk: 8 Oct. (7) TIP (BS). Winter Wren: 22 Oct. (1) RL (MEM). Wood Thrush: 22 Oct. (1) RL (MEM). Hermit Thrush: 22 Oct. (3) RL (MEM). Orange-crowned Warbler: 22 Oct. (1) RL (MEM). Western Meadowlark: 6, 13, 25 Nov. (1) TIP (MLC). Fox Sparrow: 22 Oct. (1) RL (MEM).

Locations: CT—Cates, NT—North of Tiptonville, RL—Reelfoot Lake, TIP—Tiptonville, TF—Tiptonville Ferry.

Observers: BC—Ben Coffey, LC—Lula Coffey, EC—Eugene Cypert, MLC—Mary Lou Cypert, WL—William Lindamood, MEM—Memphis Chapter TOS, REF—Reelfoot National Wildlife Refuge census figures, BS—Betty Sumara.

EUGENE CYPERT, 813 Foster Street, Tiptonville 38079.

SAVANNAH—*Hawks-Sparrows*: Sharp-shinned Hawk: 19 Nov. (1) S. American Woodcock: courtship flights of up to ten individuals from mid-Oct. on into Dec. H. Spotted Sandpiper: 23 Nov. (1) P. Eastern Wood Pewee: to 14 Oct. (1) singing H. Purple Martin: 23 Sept. (5) S. Catbird: to 21 Oct. (1) I. Gray-cheeked Thrush: 10 Sept. (1) Golden-crowned Kinglet: first 22 Sept. (2) H. Ruby-crowned Kinglet: 23 Nov. (12) in one flock P. Warbling Vireo: 23 Sept. (2). Nashville Warbler: to 14 Oct. (1) P. Yellow-throated Warbler: 14 Oct. (1) P. Pine Warbler: to 14 Oct. (3) P. Palm Warbler: 22 Sept. (1) H. Northern Waterthrush: 22 Sept. (1) H. Baltimore Oriole: 9 Sept. (1), 7 Oct. (1) H. Scarlet Tanager: 7 Oct. (1) H. Rose-breasted Grosbeak: to 14 Oct.. (3) P. Blue Grosbeak: to 14 Oct. (2) P. Indigo Bunting: to 21 Oct. (3) and 28 Oct. (1) I. Fox Sparrow: first 21 Oct. (1) I. Lincoln's Sparrow: 7, 14 Oct. (1), 21 Oct. (2) I.

Locations: H—Harbert Hills Academy, I-Indian Creek, P-Pickwick Dam and Lake, S—Savannah.

Observers: Jerry Mathis and Mike Patterson.

DAVID E. PATTERSON, Harbert Hills Academy, Olive Hill 38475.

NASHVILLE—*Loons-Geese*: Common Loon: 22 Nov. (1) OHL (LOT). Horned Grebe: 8 Nov. (1) BL (HEP), 11 Nov. (5) BL, (2) OHL (HCM, HEP). Pied-billed Grebe: normal; unusual flock of (18) 18 Oct. RL (MCW). Green Heron: last 30 Sept. (1) (MCW). Yellow-crowned Night Heron: 15 Sept. (2) BL (HEP), 16 days latest ever. Canada Goose: first (4) 30 Sept. ACM (AFG); a few reports of Oct. flocks. Snow Goose: 20 Oct. (5) with Canadas SHV (KAG). Blue Goose: 20 Oct. (1) (LOT).

Ducks: scarce and late arriving. Mallard: very late and scarce with the first report being (3) 31 Oct. OHL (LOT). Black Duck: 19 Oct. (2) RL (EE); nearly normal later at BL, OHL. Gadwall: 16 Oct. (1) RL (MCW); two reports of singles later. Pintail: 30 Sept. (1) ACM (AFG). Green-winged Teal: 22 Oct. (4) CL (MCW, EE), 11 Nov. (6) CL (HCM, HEP). Blue-winged Teal: 30 Sept. (22) ACM (AFG), 15 Oct. (7) RL (MCW). American Widgeon: 11 Nov. (3) BL (HCM, HEP). Shoveler: 11 Nov. (1) CL (HCM, HEP). Redhead: 16 Nov. (2) BL (HEP). Ring-necked Duck: late, first 24 Oct. (2) BL (HEP); only sizable flock 26 Oct. (60) RL (MCW). Lesser Scaup: almost absent; the first 17 Oct. (1) BL (HEP); max. 22 Nov. (6) CL (LOT). Common Goldeneye: 29 Nov. (10) RL (EE). Bufflehead: 11 Nov. (2) CL (HCM, HEP), 22 Nov. (1) CL (LOT). Hooded Merganser: 8 Nov. (3) BL (HEP), 22 Nov. (5) CL (LOT). Common Merganser: 19 Nov. (1) RL (HCM, HEP).

Hawks-Sandpipers: Osprey: 25 Sept. (1) ACM (LOT). Virginia Rail: 7 Oct. (1) CC (MCW). Yellow Rail: a very rare record, 7 Oct. (1) CC (MCW). American Coot: 30 Sept. (4) RL (MCW); by Nov. (100) RL, OHL. Killdeer: very scarce. American Woodcock: 15 Oct. (1) *. Common Snipe: 30 Sept. (6) ACM (AFG), 11 Nov. (1) CL (HCM, HEP). Spotted Sandpiper: 22 Oct. (2) CL (EE, MCW). Lesser Yellowlegs: 30 Sept. (6) ACM (AFG), 22 Oct. (3) CL (EE, MCW). Pectoral Sandpiper: 30 Sept. (6) ACM (AFG). Dunlin: 11 Nov. (4) CL (HCM, HEP). Semipalmated Sandpiper: 30 Sept. (1) ACM (AFG).

Gulls-Flycatchers: Herring Gull: 11 Nov. (1) OHL (HCM, HEP), 29 Nov. (3) BL (HEP). Ring-billed Gull: also late and scarce with the first 31 Oct. (15) OHL (LOT); peak 29 Nov. (32) BL (HEP). Bonaparte's Gull: 29 Nov. (17) BL (HEP). Terns: none. Black-billed Cuckoo: late, 22 Oct. (1) *. Common Nighthawk: 2 Sept. (200) 2 J's (HEP); last 17 Oct. (1) H (HCM). Chimney Swift: normal; last 17 Oct. (10) H (HCM). Red-headed Woodpecker: 27 Sept. (a transient) H (HCM); very rare here in winter now. Yellow-bellied Sapsucker: 30 Sept. (1) (LOT). Eastern Kingbird: late 30 Sept. (1) SHV (LOT). Eastern Phoebe: migrating birds H (HCM) (1) on 22 Sept., 7, 8, 18 Oct., and 5 Nov.; (1) 2 J's 18 Nov. (HCM, HEP). Acadian Flycatcher: 6, 16 Oct. (1) *, the last being 14 days latest ever. Traill's Flycatcher: 12 Sept. (1) *.

Swallows-Thrushes: Swallows: no reports. Brown Creeper: 28 Oct. (1) H (HCM). House Wren: 20 Sept. (1) H (HCM). Winter Wren: late and

(KAG). Long-billed Marsh Wren: 18 Oct. (1) CP (HCM). Catbird: last 9 Oct. (1) H (ARL). Brown Thrasher: 15 Nov. (1) H (JOE). Wood Thrush: 27 Oct. (1) casualty near H *fide* (ARL). Hermit Thrush: first 17 Oct. (2) H (CWF). Swainson's Thrush: from 12 Sept. (1) *, to a very late date, 28 Oct. (1) BS (KAG); scarce as were all the thrushes. Gray-cheeked Thrush: very scarce. Veery: almost absent.

Gnatcatchers-Vireos: Blue-gray Gnatcatcher: last 30 Sept. (3) RL (MCW). Golden-crowned Kinglet: 18 Oct. (1) H (HCM). Ruby-crowned Kinglet: a very early record, 16 Sept. (2) CW (SB). Loggerhead Shrike: at least normal with (6-8) seen on trips. Starlings: far below normal with only a few thousand roosting downtown. White-eyed Vireo: 21 Nov. (1) H (HCM), 29 days latest ever except for a Xmas Count record in 1926, MIGRANT 3:43. Red-eyed Vireo: last 1 Oct. (1) *. Philadelphia Vireo: 5 Oct. (1) *.

Warblers: Prothonotary: 10 Oct. (1) casualty WSM TV tower (ARL), 17 days latest ever. Worm-eating: 24 Sept. (1) *, a fairly late date. Tennessee: from 3 Sept. (1) to 15 Oct. (1). both *. Orange-crowned: 15 Oct. (1) *. Nashville: a late date, 18 Oct. (1) *. Magnolia: from 2 Sept. (2) H (HCM) to 22 Oct. (1) *. Myrtle: late in arrival and scarce. Black-throated Green: 8 Oct. (2) H (HCM). Blackburnian: only report 30 Sept. (2) RL (MCW). Chestnut-sided: from an early date, 2 Sept. (1) banded 2 J's (MB) to 1 Oct. *. Bay-breasted: first 9 Sept. (2) CW (SB), then they seemed to have left early. Palm: last 14 Oct. (1) RL (JOE). Ovenbird: last 14 Oct. (1) *. Northern Waterthrush: a fairly late date, 15 Oct. (1) *. Louisiana Waterthrush: 2 Sept. (1) banded 2 J's (MB), 12 days latest ever for a bird in hand. Kentucky: left about two weeks earlier than normal. Connecticut: our third fall record, 14 Oct. (1) H (CWF). Mourning: only one report, 2 Sept. (1) *. Yellowthroat: seemed to have left early. Hooded: left early. Canada: from 2 Sept. (1) (SB) and (1) * to 30 Sept. (1) (MCW). Redstrat: left early.

Orioles-Sparrows: Baltimore Oriole: last 1 Sept. (1) H (HCM). Rusty Blackbird: 20 Oct. (2) H (JOE), 7 days earliest ever, later (9-12). (They have wintered in the yard for several years.) Common Grackle: scarce with only a few small flocks. Scarlet Tanager: 30 Sept. (2) SHV (JOE). Summer Tanager: late 23 Oct. (1) *. Rose-breasted Grosbeak: scarce. Indigo Bunting: fall build-up was far below their normal abundance; last 15 Oct. (4) *. Dickcissel: unusual winter record, (1) for several days in late Nov. H (MLL). Purple Finch: scarce and late, with the first being 10 Nov. (5) H (FM). Slate-colored Junco: late and few in numbers, the first 18 Oct. (1) *. Chipping Sparrow: late departing were (2) 2 Nov. H (ARL). White-crowned Sparrow: first report (1) 14 Oct. *. White-throated Sparrow: late and below normal; first 11 Oct. (1) *. Lincoln's Sparrow: 14 Oct. (1) *, always rare here. Swamp Sparrow: first, fairly early, (1) 1 Oct. *. Song Sparrow: first, 11 Oct. (1) BL (HEP).

Locations: ACM—Ashland City Marsh, BS—Basin Springs, BL—Bush Lake, CC—Cannon County, CP—Centennial Park, CW—Cheekwood, CL—Colman's Lake, H—home of observer, OHL—Old Hickory Lake, RL—Radnor Lake, SHV—South Harpeth Valley, 2 J's—Two Jays Sanctuary.

Observers: SB—Sue Bell, MB—Mike Bierly, JOE—John O. Ellis, EE—Erline Elmore, CWF—Clara Fentress, AFG—Albert F. Gainer and party, KAG—Katherine A. Goodpasture, ARL—Amelia R. Laskey, MLL—Mary Lou Lorance, HCM—Harry C. Monk, FM—Fanny Murphy, HEP—Henry E. Parmer, LOT—Lawrence O. Trabue, MCW—Mary C. Wood.

Note: the asterisk, *, is used to denote records of birds banded at Two Jays Sanctuary by KAG.

HENRY E. PARMER, 3800 Richland Ave., Nashville 37205.

COOKEVILLE—*Herons-Sparrows*: Great Blue Heron: 9 Sept. (1). Bald Eagle: 5 Oct. (1). Osprey: 14 Sept. (1). Sandhill Crane: 29 Nov. (3) WGA (RH). American Coot: first 26 Sept. (4), 27-30 Sept. (23, 28, 31, 39) WGA (RH), 29 Oct. (300) DHL (BC). Common Nighthawk: 11 Oct. (23), 12 Oct. (4) HP (CH). Brown Creeper: 14 Nov. (1) WGA (RH) 15, 16 Nov. (1) HP (MW). Brown Thrasher: 16 Nov. (1). Blue-gray Gnatcatcher: 26 Sept. (1). Cedar Waxwing: first 6 Sept. (25). Purple Finch: 19 Nov. (6), 28 Nov. (9), 30 Nov. (35) WGA (RH). Slate-colored Junco: first 25 Oct. (1) HP (CH), 28 Oct. (1) WGA (RH). White-throated Sparrow: 25 Oct. (1) HP (CH), 8 Nov. (6) WGA (RH).

Locations: DHL—Dale Hollow Lake, HP—Home Place, WGA—Willow Grove Area.

Observers: BC—Beulah Clark, CH—Caprice Haile, RH—Roy Hinds, MW—Marie White.

MARIE WHITE, 1218 Byrne Avenue, Cookeville 38501.

CHATTANOOGA—*Loons-Hawks*: Common Loon: first 23 Oct. (1) CL; maximum 8 Nov. (43) HCP; decreasing thru end of period. Horned Grebe: first 11 Nov. (1) HCP; regular in small numbers thereafter; maximum 28 Nov. (26) BTWP. Pied-billed Grebe: few and scattered except at MC; maximum 19 Nov. (12) MC. Double-crested Cormorant: 8 Nov. (1) HCP (JD). Great Blue Heron: few and scattered; maximum 4 Sept. (13) HI. Green Heron: last 16 Oct. (1) AM (KD). Little Blue Heron: last 2 Oct. (1) HRA (KD). Common Egret: last 18 Sept. (4) HRA. Yellow-crowned Night Heron: one individual with broken wing observed at AM until 7 Oct. American Bittern: only record, late on 6 Nov. (1) D (JD). Canada Goose: first 4 Sept. (6) HI; wintering population of 4,500 at HI on 22 Oct.; small scattered groups elsewhere. Snow Goose: 22 Oct. (1) HI, 24 Oct. (1) WR, 29 Oct. (1) D, 6 Nov. (1) D. Blue Goose: first 16 Oct. (4) HI; small wintering group there; maximum 29 Oct. (18). Mallard: regular thru period; maximum 19 Nov. (760) WR. Black Duck: first 28 Sept. (4) BTWP; regular since; maximum 11 Nov. (125) BTWP. Gadwall: first 16 Oct. (1) HRA; regular since at VR; maximum 24 Oct. (200) WR. Pintail: 26 Sept. (1) HRA, 14 Nov. (2) W, 19 Nov. (55) WR. Green-winged Teal: first 14 Oct. (9) CD; scattered records since; maximum 29 Oct. (21) HI. Blue-winged Teal: last 29 Oct. (4) HI. American Widgeon: first 11 Sept. (2) HRA; regular in small numbers since; maximum 19 Nov. (280) WR. Shoveler: 16 Oct. (1) SB, 22 Oct. (7) HI, 6 Nov. (1) HRA, 19 Nov. (4) MC, 29 Nov. (3) VR. Wood Duck: very few records; maximum 10 Oct. (61) SB (KD). Redhead: 19 Nov. (1) WR, 23 Nov. (1) VR. Ring-necked Duck: first 24 Oct. (1) WR; regular in small numbers since; maximum 29 Oct. (22) Canvasback: 19 Nov. (33) WR, 28 Nov. (6) BTWP. Greater Scaup: 4 Nov. (4) HCP, 20 Nov. (15) BTWP, 23 Nov. (22) VR (JD, KD). Lesser Scaup: first 5 Nov. (1)

WBL; regular in small number since; maximum 19 Nov. (5) WR. Common Goldeneye: 19 Nov. (14) WR, 28 Nov. (6) BTWP. Bufflehead: first 11 Nov. (1) BTWP; scattered records since; maximum 28 Nov. (45) CL. Ruddy Duck: 4 Nov. (2) HCP, 6 Nov. (3) BTWP, 14 Nov. (10) W, 28 Nov. (1) BTWP. Hooded Merganser: first 4 Nov. (3) HCP; scattered records since; maximum 29 Nov. (56) HCP. Red-breasted Merganser: 11 Nov. (1) BTWP; 13 Nov. (5) CL. Sharp-shinned Hawk: very few records, mostly during migration. Cooper's Hawk: scattered single birds. Bald Eagle: 1 Oct. (1) HCP. Marsh Hawk: occasional during migration; scattered records since; maximum 29 Oct. (2) HI. Osprey: occasional during migration; last 5, 6 Nov. (1) WBL. Pigeon Hawk: 23 Sept. (1) EM (JD), a migration record.

Grouse-Terns: Ruffed Grouse: 14 Oct. (1) FW. Sandhill Crane: 13 Nov. (14) CC (KD). King Rail: 2 Oct. (1) AM. Sora Rail: 18 Sept. (1) AM, 2 Oct. (1) AM. American Coot: regular thru period; wintering population at MC 19 Nov. (6,600). Semipalmated Plover: 11 Sept. (5) SB, 22 Oct. (1) HI. American Golden Plover: 22 Oct. (1) HI. Black-bellied Plover: 3, 4 Sept (1) SB. American Woodcock: 25 Nov. (1) BR, 28 Nov. (1) AM. Common Snipe: first 11 Sept. (1) SB; regular since; maximum 20 Nov. (71) SB. Spotted Sandpiper: last 23 Oct. (1) SB. Solitary Sandpiper: last 26 Sept. (1) HRA. Greater Yellowlegs: maximum 6 Nov. (6) HRA; last 14 Nov. (1) HRA. Lesser Yellowlegs: maximum 26 Sept. (6) HRA; last 31 Oct. (3) HRA. Pectoral Sandpiper: maximum 23 Oct. (12) HRA; last 23 Nov. (1) SB. Least Sandpiper: regular thru period; maximum 2 Oct. (56) HRA (KD), highest number ever here. Dunlin: regular thru period in unusually good numbers; maximum 6 Nov. (90) HRA (KD). Dowitcher: 4 Sept. (3) HRA, 16 Oct. (1) HRA. Semipalmated Sandpiper: maximum 11 Sept. (10) HRA; last 16 Oct. (1) HRA. Western Sandpiper: 3 Sept. (1) SB, 4 Sept. (3) HRA, 26 Sept. (1) HRA. Herring Gull: first 23 Oct. (1) W; regular in small numbers since; maximum 29 Nov. (10) VR. Ring-billed Gull: first and early on 7 Oct. (1) HCP; regular since; maximum 29 Nov. (43) VR. Bonaparte's Gull: 5 Nov. (1) WBL. Forster's Tern: 18 Sept. (3) HI. Caspian Tern: 2 Oct. (1) HI.

Cuckoos-Waxwing: Yellow-billed Cuckoo: last 23 Sept. (1) EM. Barn Owl: 20 Sept. (1), 23 Sept. (1) both dead on Interstate at LM, 16 Oct. (1), 16 Nov. (2), 22 Nov. (1), 27 Nov. (1) all feeding at AM (JD, KD). Great Horned Owl: 19 Oct. (1) LM, 22 Oct. (1) HI, 25 Nov. (1) VR, 29 Nov. (1) BTWP. Common Nighthawk: last 20 Sept. (1) H. Chimney Swift: last 5 Oct. (100) H. Ruby-throated Hummingbird: last 23 Sept. (1) EM. Yellow-bellied Sapsucker: first 4 Oct. (1) LM. Eastern Kingbird: last 6 Sept. (3) SB. Eastern Wood Pewee: last 25 Sept. (1) EM. Tree Swallow: last 1 Oct. (12) HCP. Rough-winged Swallow: last 21 Sept. (2) EM. Barn Swallow: last 20 Sept. (125) SB. Cliff Swallow: last 21 Sept. (4) EM. Purple Martin: last 12 Sept. (3) EM. Red-breasted Nuthatch: 17 Sept. (1) EM, 18 Sept. (1) EM. Brown Creeper: first 14 Nov. (3) BTWP. Winter Wren: first 8 Nov. (1) BTWP. Long-billed Marsh Wren: 20 Sept. (1) SB (KD, JW). Short-billed Marsh Wren: 7 Oct. (1) SB. Wood Thrush: last 17 Sept. (2) EM. Hermit Thrush: first 31 Oct. (1) BTWP. Blue-gray Gnatcatcher: last 6 Sept. (2) LM. Golden-crowned Kinglet: first 16 Oct. (1) BTWP. Ruby-crowned Kinglet: first 4 Oct. (1) LM. Water Pipit: first 10 Oct. (1) SB; regular there in small numbers since. Cedar Waxwing: scattered records; maximum 20 Nov. (65) BTWP.

Vireos-Sparrows: White-eyed Vireo: last 18 Sept. (1) HRA. Yellow-throated Vireo: last 2 Oct. (1) HRA. Red-eyed Vireo: last 23 Sept. (1) EM (FW). Black and White Warbler: last 6 Sept. (1) LM. Tennessee Warbler: last 4 Oct. (3) LM. Parula Warbler: last 16 Oct. (1) HRA. Magnolia Warbler: last 16 Oct. (1) HRA. Myrtle Warbler: first 23 Oct. (2) CL; scattered records since. Black-throated Green Warbler: last 4 Oct. (2) LM. Cerulean Warbler: 6 Sept. (1) LM (KD). Blackburnian Warbler: last 4 Oct. (1) LM. Chestnut-sided Warbler: first 14 Sept. (1) LM, last 23 Sept. (3) EM. Bay-breasted Warbler: last 10 Oct. (1) HRA. Palm Warbler: 22 Oct. (1) HI (JD). Yellowthroat: last 11 Sept. (1) SB. Canada Warbler: 6 Sept. (1) LM. American Redstart: last 4 Oct. (1) LM. Scarlet Tanager: last 18 Sept. (1) EM. Summer Tanager: last 18 Sept. (1) EM. Rose-breasted Grosbeak: last 13 Oct. (1) LM. Blue Grosbeak: last 13 Sept. (1) SB. Indigo Bunting: last and late on 29 Oct. (1) HRA. Purple Finch: first 14 Nov. (3) BTWP. Savannah Sparrow: first 26 Sept. (10) HRA. Vesper Sparrow: 22 Oct. (3) HI, 29 Oct. (1) HRA. Slate-colored Junco: first 31 Oct. (1) BTWP. Chipping Sparrow: regular in small numbers; maximum 6 Nov. (6) BTWP. White-crowned Sparrow: first 22 Oct. (3) HI. White-throated Sparrow: first 23 Oct. (2) BTWP. Fox Sparrow: very scarce; first 19 Nov. (1) WR. Swamp Sparrow: first 16 Oct. (2) SB.

Locations: AM—Amnicola Marsh, BR—Big Ridge Road, BTWP—Booker T. Washington State Park, CC—Candies Creek Management Area, CD—Chickamauga Dam, CL—Chickamauga Lake, D—Dayton, Tennessee, EM—Elder Mountain, FW—Falling Water Creek, H—Hixson, Tennessee, HCP—Hamilton County Park, HI—Hiwassee Island Refuge, HRA—Hiwassee River Area, LM—Lookout Mountain, MC—Mullins Cove, Hales Bar Lake, SB—Savannah Bay, VR—Vincent Road Launching Area, W—Wolftever Area of Lake Chickamauga, WBL—Watts Bar Lake, WR—Woods Reservoir.

Observers: Maxine and Hugh Crownover, JD—Jon DeVore, KD—Kenneth Dubke, Roy Evenson, Mark and Jack Wagoner, Frank Ward, Gene and Adele West.

JON E. DeVORE, 4922 Sarasota Drive, Hixson 37343.

KNOXVILLE—*Herons-Sandpipers*: Green Heron: 1 Oct. (4). Blue Goose: 11-12 Nov. (2) PS (CM, FA). Osprey: 1 Oct. (2). Common Snipe: 1 Oct. (11). Solitary Sandpiper: 1 Oct. (5).

Hummingbird-Wrens: Ruby-throated Hummingbird: 1 Oct. (3). Eastern Kingbird: 1 Oct. (1). Tree Swallow: 1 Oct. (3). White-breasted Nuthatch: only 1 on 1 Oct. Red-breasted Nuthatch: none on 1 Oct. Long-billed Marsh Wren: 1 Oct. (7). Short-billed Marsh Wren: 1 Oct. (3).

Warblers-Sparrows: Wilson's Warbler: 1 Oct. (1). Blue Grosbeak: 1 Oct. (2). Purple Finch: 13 Nov. (3), 23 Nov. (25). Savannah Sparrow: 12 Sept. (10).

Locations: PS—University Plant Science Farm. The 1 Oct. records were from the Fall Count in Knox County.

Observers: FA—Fred Alsop, CM—Calvin McMillan.

JAMES T. TANNER, Route 10, Knoxville 37920.

GREENEVILLE—*Grebes-Mergansers*: Horned Grebe: 26 Nov. (4) SP (TOS). Pied-billed Grebe: 26 Nov. (3) SP (TOS). Great Blue Heron: 15 Sept. (1) GC, 10 Oct. (1) GC, 4 Nov. (1) GC (RN). Green Heron: 7 Oct. (1) CB (TOS). Mallard: 14 Nov. (50) RF (RN), 26 Nov. (200) SP (TOS). Black Duck: 26 Nov. (2) SP (TOS). American Widgeon: 26 Nov. (4) SP (TOS). Shoveler: 26 Nov. (2) SP (TOS). Lesser Scaup: 26 Nov. (2) SP (TOS). Bufflehead: 26 Nov. (2) SP (TOS). Red-breasted Merganser: 26 Nov. (2) SP (TOS).

Hawks-Wrens: Red-tailed Hawk: 9 Sept. (1) GC, 15 Oct. (1) GC, 12 Nov. (1) GC (RN). Red-shouldered Hawk: 7 Oct. (1) CB (TOS). Ruffed Grouse: 7 Oct. (1) CB (TOS). American Coot: 26 Nov. (500) SP (TOS). Common Snipe: 19 Nov. (1) RF (RN). Herring Gull: 26 Nov. (1) SP (TOS). Barn Owl: 2 Oct. (1) O (RS, DJ); 7 Oct. (1) CB (TOS). Great Horned Owl: 12 Oct. (1) RF (RN). Yellow-bellied Sapsucker: 7 Oct. (1) CB (TOS). Hairy Woodpecker: 7 Oct. (1) CB (TOS). Common Raven: 7 Oct. (2) CB (TOS). White-breasted Nuthatch: 7 Oct. (2) CB (TOS). Winter Wren: 20 Nov. (1) RF. Bewick's Wren: 15 Nov. (1) RF. Short-billed Marsh Wren: 3 Sept. (2) RF (RN).

Thrushes-Sparrows: Wood Thrush: 7 Oct. (1) CB (TOS). Hermit Thrush: 7 Oct. (2) CB (TOS). Swainson's Thrush: 7 Oct. (4) CB (TOS). Gray-cheeked Thrush: 7 Oct. (1) CB (TOS). Ruby-crowned Kinglet: 7 Oct. (2) CB (TOS). Solitary Vireo: 7 Oct. (4) CB (TOS). Tennessee Warbler: 7 Oct. (1) CB (TOS). Orange-crowned Warbler: 19 Nov. (1) G (F). Black-throated Blue Warbler: 7 Oct. (3) CB (TOS). Black-throated Green Warbler: 7 Oct. (3) CB (TOS). Bay-breasted Warbler: 7 Oct. (5) CB (TOS). Pine Warbler: 7 Oct. (2) CB (TOS). Palm Warbler: 7 Oct. (3) CB (TOS), 17 Nov. (20) RF (RN), 26 Nov. (1) RF (RN). Ovenbird: 7 Oct. (1) CB (TOS). American Redstart: 7 Oct. (1) CB (TOS). Rose-breasted Grosbeak: 7 Oct. (3) CB (TOS). Indigo Bunting: 7 Oct. (2) CB (TOS). Slate-colored Junco: 7 Oct. (44) CB (TOS). White-crowned Sparrow: 22 Oct. (5) RF (RN), a rather late date of arrival.

Locations: CB—Camp Creek Bald and slopes to Paint Creek, G—Greeneville, GC—Grassy Creek, O—Ottway, RF—Roaring Fork, SP—John Sevier Steam Plant, Holston River, Hawkins County.

Observers: F—Mrs. William Fischer, DJ—David Johnson, RN—Richard or Ruth Nevius, RS—Royal Spees, TOS—Groups of members of the Greeneville Chapter of the TOS with guests from other chapters.

RICHARD NEVIUS, Route 3, Greeneville 37743.

ELIZABETHTON—*Loons-Gulls*: Common Loon: max. 13 Nov. (23) BL. Pied-billed Grebe: max. 22 Nov. (21) BL. Great Blue Heron: max. 22 Nov. (11) BL, PHL. Canada Goose: 23 Sept. (1) WR (LRH), 21-28 Nov. (1) DR (FWB, LRH). Blue-winged Teal: max. 6 Oct. (53) AS (CRS, GW). Lesser Scaup: max. 4 Nov. (1000) WaL (LRH). Common Goldeneye: 4 Nov. (1). Bufflehead: max. 18 Nov. (25) WaL. Sharp-shinned

Hawk: 17 Sept (2). Cooper's Hawk: 27 Oct. (1). Red-tailed Hawk: 19 Nov. (1), 27 Nov. (2). Broad-winged Hawk: 17 Sept. (2), 23 Sept. (1). Marsh Hawk: 15 Sept. (1), 1 Oct. (1), 22 Oct. (1), 19 Nov. (2). Osprey: 27 Oct. (1) PHL (LRH, GW). Turkey: 25 Nov. (1) LF (FWB). American Coot: max. 27 Oct. (22). Semipalmated Plover: 1 Oct. (1) AS (CRS). American Woodcock: 14, 21 Oct. (1). Common Snipe: 6 Oct. (1). Solitary Sandpiper: 18 Sept. (1) AS. Greater Yellowlegs: 1 Oct. (1) AS (CRS). Lesser Yellowlegs: 18 Sept. (1) AS. Least Sandpiper: max. 6 Oct. (6) AS. Semipalmated Sandpiper: max. 6 Oct. (7) AS. American Avocet: 18 Sept. (1) AS (WC, CRS). Herring Gull: 22 Nov. (1) BL.

Woodpeckers-Sparrows: Red-headed Woodpecker: 10, 15 Sept. (1), 20 Nov. (1). Yellow-bellied Sapsucker: first 30 Sept. (1) SV. Eastern Wood Pewee: very late record, 20 Nov. (1) (LH). Barn Swallow: late record, 1 Oct. (1) (CWF). Brown Creeper: 29 Oct. (1), 23 Nov. (1). Catbird: last 14 Oct. (1). Brown Thrasher: 4, 8, 22 Nov. (1) (WAB). Hermit Thrush: 26 Nov. (1). Swainson's Thrush: 1 Oct. (4), 3 Oct. (2). Gray-cheeked Thrush: 17 Sept. (1) (CWF). Ruby-crowned Kinglet: first 30 Sept. (1) SV. Yellow-throated Vireo: 20 Sept. (1). Nashville Warbler: 25 Sept. (1) MC (CRS), 14 Oct. (1) MC (banded, CRS). Magnolia Warbler: 8 Sept.-3 Oct. (1-4). Cape May Warbler: 9 Sept. (2), 28 Sept. (1). Bay-breasted Warbler: 8, 17, 24 Sept. (1), 1 Oct. (1). Pine Warbler: 1 Oct. (2). Palm Warbler: 17 Sept.-30 Oct. (1-15). Northern Waterthrush: 25 Sept. (1), 15 Oct. (2). Louisiana Waterthrush: 1 Oct. (1). Connecticut Warbler: 14 Oct. (1) MC (banded, CRS). Yellow-breasted Chat: last 17 Sept. (1), rather late date. Wilson's Warbler: 24 Sept. (1) MC (CRS). Bobolink: 30 Sept. (1) (LRH). Rose-breasted Grosbeak: last 15 Oct. (1). Indigo Bunting: last 15 Oct. (1), late. Purple Finch: no records. Pine Siskin: 29 Oct. (5), 12 Nov. (12), both RM (FWB). Red Crossbill: 15 Oct. (4), 29 Oct. (10), 5 Nov. (3), 23 Nov. (1), 26 Nov. (4), all RM (FWB). Chipping Sparrow: 10 Nov. (1) (banded, LRH), late. Lincoln's Sparrow: 14, 21 Oct. (1) MC (banded, CRS).

Locations: AS—Austin Springs, BL—Boone Lake, DR—Doe River, LF—Laurel Fork Wildlife Management Area, MC—Milligan College, PHL—Patrick Henry Lake, RM—Roan Mountain, SV—Shady Valley, WaL—Watauga Lake, WR—Watauga River.

Observers: FWB—Fred W. Behrend, WAB—William A. Bridgforth, Jr., WC—Wallace Coffey, CWF—C. W. Fairbanks, LRH—Lee R. Herndon, LH—Lois Herndon, CRS—Charles R. Smith, GW—Gary Wallace.

CHARLES R. SMITH, Route 2, Johnson City 37601.

BRISTOL—*Loons-Mergansers*: Common Loon: first 27 Oct. (3) BL; 31 Oct. (8) BL; maximum 20 Nov. (15) SHL. Horned Grebe: first 7 Nov. (2) SHL (WC, DGD); max. 17 Nov. (14) SHL; 19 Nov. (4) BL. Pied-billed Grebe: first 4 Oct. (11) SHR; 31 Oct. (4) BL; max. 19 Nov. (25) BL. Great Blue Heron: first 6 Oct. (1) SHL; 11 Oct. (4) SHL, 27 Oct. (6) BL, 31 Oct. (5) PHL, 24 Nov. (4) SHL. Canada Goose: first 6 Nov. (3) SHL (WC, CS, LH), 7 Nov. (3) SHL (WC, DGD), 9 Nov. (3). Mallard: first 5 Nov. (1) BL (WC, CC); 5 Nov. (11) CR, Va; 13 Nov. (6) BL; max. 15 Nov. (28) SHL. Black Duck: first 13 Nov. (5) BL (WC, DGD); max. 15 Nov. (60) SHL; 29 Nov. (20) SHL. Gadwall: first 21 Oct. (17) PHL (WC, DGD); 27 Oct. (3) BL, 31 Oct. (18) PHL, 13 Nov. (15) BL, 23 Nov. (10) SHL. Pintail: only record 15 Nov. (18) SHL (WC, DGD). Green-winged Teal: first 15 Nov. (5) CR, Va. (WC, CC); 23 Nov. (1) SHL (WC, DGD). American Widgeon: first 31 Oct. (15) PHL; 5 Nov. (3) BL, 13 Nov. (37) BL, 15 Nov. (15) SHL, 26 Nov. (6) SHL, Va. Shoveler: 29 Nov. (1) WP. Wood Duck: 27 Oct. (5) BL; last 31 Oct. (18) PHL. Redhead: 17 Nov. (1) SHL (WC, DGD). Ring-necked Duck: first 21 Oct. (4) PHL; 31 Oct. (4) PHL, 5 Nov. (14) BL, 5 Nov. (79) CR, Va.; 7 Nov. (2) SHL; max. 15 Nov. (100) SHL. Lesser Scaup: first 27 Oct. (9) BL; 31 Oct. (17) BL, 6 Nov. (2) CR, Va.; max. 15 Nov. (1650) SHL. Common Goldeneye: only fall record 26 Nov. (1) SHL, Va. (WC). Bufflehead: 13 Nov. (14) BL; max. 15 Nov. (20) SHL; 19 Nov. (10) BL, 20 Nov. (4) SHL. Ruddy Duck: first 5 Nov. (11) BL (WC, CC); 5 Nov. (7) CR, Va. (WC, CC), 7 Nov. (3) SHL. Hooded Merganser: first 5 Nov. (1) CR, Va. (WC, CC); max. 15 Nov. (23) SHL. Red-breasted Merganser: first 31 Oct. (1) BL (WC, DGD); 6 Nov. (2) SHL (WC, CS, LH); max. 15 Nov. (93) SHL; 19 Nov. (6) BL.

Vultures-Hawks: Turkey Vulture: max. 6 Nov. (45) BR, Va. (WC, DGD); 9 Nov. (20) SHL. Black Vulture: 6 Nov. (1) CR, Va. (WC, CC); 9 Nov. (5) SHL (WC, DGD). Sharp-shinned Hawk: 13 Nov. (1) BL (WC, CS). Cooper's Hawk: 6 Nov. (1) BR, Va. (WC, DGD). Red-tailed Hawk: 31 Oct. (1) PHL (DGD, WC), 5 Nov. (1) BL (WC, CC), 9 Nov. (1) 6 Nov. (2) BR, Va. (WC, CS, LH, DGD), 7 Nov. (1) SHL (WC, DGD). Rough-legged Hawk: 5 Nov. (1) adult, light phase, near BR, Va. (WC, CC); 6 Nov. (1) same as before, near BR, Va. (WC, DGD). Bald Eagle: 17 Nov. (1) immature SHL (WC, DGD); 20 Nov. (1) adult SHL (WC, DGD). Marsh Hawk: 1 Oct. (1) SV (WC, JS, DGD), 11 Oct. (1) SHL (WC, DGD), 6 Nov. (2) near BR, Va. (WC, CS, LH, DGD). Osprey: 11 Oct. (1) SHL (WC). Sparrow Hawk: regular 26 Oct. (1) SV.

Turkey-Swift: Turkey: 20 Nov. (10) SHL (WC, DGD). American Coot: first 6 Oct. (1) SHL; 27 Oct. (15) BL, 31 Oct. (9) PHL; max. 5 Nov. (34) BL. Killdeer: 4 Oct. (7) SHL, 17 Oct. (5) SHL, 27 Oct. (1) BL, 6 Oct. (20) SHL, 29 Nov. (2) WP. American Woodcock: 4 Oct. (1) SHR (WC). Common Snipe: 4 Oct. (2) BR, Tenn. (WC, DGD). Greater Yellowlegs: 6 Oct. (1) SHL (WC), 6 Nov. (1) SHL (WC, CS, LH), 7 Nov. (2) SHL. Lesser Yellowlegs: 11 Oct. (1) SHL (WC, DGD). Ring-billed Gull: first 5 Nov. (6) BL (WC, CC); 17 Nov. (2) SHL, 19 Nov. (3) BL, 20 Nov. (14) SHL, 29 Nov. (18) SHL. Common Tern: 10 Sept. (6) SHL. Yellow-billed Cuckoo: late records 11 Oct. (1) SHL, 15 Oct. (1). Barn Owl: 26 Oct. (1) SV (WC, JS, DGD). Screech Owl: 1 Nov. (2) SHL, 3 Nov. (2) BCC. Nighthawk: 16 Oct. (6).

Woodpeckers-Creepers: Red-headed Woodpecker: 14 Sept. (1). Yellow-bellied Sapsucker: first 26 Oct. (1) SV (WC, JS), 27 Oct. (1) BL, 31 Oct. (2) BL, 6 Nov. (1) BR, Va. Eastern Phoebe: 1 Oct. (1) SV, 11 Oct. (2) SHL, 7 Nov. (1) SHL, 20 Nov. (2) SHL. Horned Lark: 26 Oct. (6) SV, 6 Nov. (12) BR, Va. White-breasted Nuthatch: 26 Oct. (1) SV (WC, JS). Brown Creeper: 26 Oct. (1) SV (WC, JS), 7 Nov. (1) SHL, 13 Nov. (2) BL, 15 Nov. (2) SHL, 23 Nov. (1) SHL.

Wrens-Shrikes: Winter Wren: 7 Nov. (1) SHL (WC, DGD), 15 Nov. (1) SHL. Brown Thrasher: 6 Oct. (1) SHL; last 27 Oct. (1) BL (DGD).

Swainson's Thrush: 17 Oct. (1) HC (WC). Gray-cheeked Thrush: 24 Oct. (3) HM (DM). Golden-crowned Kinglet: 26 Oct. (2) SV (WC, JS), 7 Nov. (12) SHL, 13 Nov. (6) BL, 15 Nov. (11) SHL, 23 Nov. (10) SHL. Ruby-crowned Kinglet: first 23 Oct. (1) SHL (WC). Cedar Waxwing: 17 Sept. (6) BR, Tenn. (JA). Loggerhead Shrike: regular.

Warblers: Myrtle Warbler: first 21 Oct. (6) PHL; max. 23 Oct. (20) SHL; 26 Oct. (4) SV, 7 Nov. (12) SHL, 9 Nov. (7) SHL. Palm Warbler: first 6 Oct. (3) SHL, 7 Nov. (2) SHL. Yellowthroat: late fall record, 11 Oct. (1) SHL.

Blackbirds-Juncoes: Baltimore Oriole: last 13 Sept. (2) WP. Rusty Blackbird: 15 Nov. (10) SHL (WC). Savannah Sparrow: 11 Oct. (2) SHL, 26 Oct. (1) SV. Vesper Sparrow: 17 Oct. (1) SHL (WC, DGD), 26 Oct. (1) SV; last 6 Nov. (1) BR, Va. (DGD). White-crowned Sparrow: first 6 Nov. (1) BR, Va. (LH); 7 Nov. (1) SHL. White-throated Sparrow: first 21 Oct. (1) PHL. Slate-colored Junco: first at lower elevation, 3 Oct. (1) WP (DM).

Locations: BCC—Bristol Country Club, BL—Boone Lake, CR, Va.—Clear Creek Reservoir, Washington County, Va., BR, Va.—Bristol, Virginia, BR, Tenn.—Bristol, Tennessee, HC—Hatcher Creek (Sullivan County, Tennessee), HM—Holston Mountain, PHL—Patrick Henry Lake, SHL—South Holston Lake, SHR—South Holston River, SV—Shady Valley, WP—Weaver Pike.

Observers: JA—Judith Abbott, CC—Carolyn Coffey, WC—Wallace Coffey, FB—Fletcher Bingham, BB—Bill Bridgforth, DGD—Gerry Delantonas, LH—Lee R. Herndon, TF—Tom Finucane, CF—Carl Fleenor, DM—David McPeak, JS—John Shumate, EV—Enno vanGelder, CS—Charles R. Smith.

DAVID McPEAK, Route 5, Box 207, Bristol 37620.

BOOK REVIEW

A LIFETIME WITH THE BIRDS: AN ORNITHOLOGICAL LOG-BOOK—By Earle R. Greene. Edwards Brothers, Inc. Ann Arbor, Michigan 48104, 1966. 6 3/8 x 9 1/4 in. ix 404 pp., 114 photographs. Cloth, $6.00.

The author relates his experiences and excursions in quest of birds over a large portion of the area covered by the 1957 edition of the A.O.U. Check-list. Many of the trips he has taken are described in much detail, telling how he traveled, routes followed, places visited, where he lodged, where and with whom he dined, with whom he birded and mentions particularly the birds added to his life list. On many trips far more amateur and professional ornithologists were listed than birds.

From his childhood, Mr. Greene has been an ardent bird student. In later years he has organized bird clubs in locations where he has been stationed, as an employee of the U.S. Fish and Wildlife Service, has held membership in numerous ornithological societies and has published a number of articles in some of the best known bird journals and in newspapers. A list of these publications is included near the end of the book.

The culmination of his efforts occurred in 1965 when he qualified for membership in the "600-club." At that time there were only 25 other members of the club. His list of birds with full species status, with only a few subspecies, with their vernacular and scientific names and the various states and provinces in which each was observed is recorded in A.O.U. Check-list order.

For anyone interested in adding to his life list or in knowing when and where to find new or rare birds this would be a valuable addition to his book shelf.

LEE R. HERNDON, Route 6, Elizabethton 37643.

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Short-billed Marsh - 1965: 43, 63, 68, 89, 95; 1966: 29, 55; 1967: 33, 47,51, 65, 67, 98, 99, 100.
Winter - 1965: 30, 43, 86, 89, 91, 93, 94, 95, 97, 98, 103; 1966: 8, 10, 20, 29, 37, 45, 62, 65, 81, 83, 84; 1967: 9, 17, 20, 21, 22, 33, 48, 51, 88, 92, 94, 95, 98, 100, 102.
Yellowlegs, Greater - 1965: 18, 43, 62, 63, 64, 65, 78, 72, 93, 95, 98; 1966: 20, 23, 25, 36, 54, 84; 1967: 32, 46, 48, 50, 54, 67, 98, 101, 102.
Lesser - 1965: 18, 19, 43, 62, 64,65, 66, 68, 71, 92, 95, 98; 1966: 20, 23, 25, 36, 54, 81, 83, 85; 1967: 32, 46, 48, 51, 53, 55, 67, 68, 95, 98, 101, 102.
Yellowthroat - 1965: 43, 57, 64, 66,67, 74, 80, 81, 82, 93, 94, 96, 98, 100; 1966: 21, 24, 26, 27, 28, 31, 33,38, 46, 61, 62, 81, 84, 86; 1967: 2, 12, 13, 35, 49, 52, 54, 56, 96, 99, 103.

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